Winfried K. Dallmann, Vladislav V. Peskov and Olga A. Murashko (eds.)

Monitoring of Development of Traditional Indigenous Land Use Areas in the Nenets Autonomous Okrug, Northwest Russia

Project report, January 2010

An interdisciplinary, collaborative project carried out by the Norwegian Polar Institute and the Association of Nenets People Yasavey, financed by the Research Council of Norway in the framework of the International Polar Year 2007-08 and the Norwegian Polar Institute.

W.K. Dallmann[1], V.V. Peskov[2] and O.A. Murashko[3], editors

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[1] Norwegian Polar Institute, senior scientist
[2] Association of Nenets People Yasavey, president
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Preface

Winfried K. Dallmann, project leader

When I first became interested in the situation of the indigenous peoples of the Russian North in the early 1990s, I got hold of an article by N. Vakhtin[1] about the legacy the Tsarist and Soviet eras had imposed on these people. At that time, information of this kind had just started to leak out of the formerly closed country to the West. Vakhtin summarised the environmental impacts of oil development since the 1960s in the Yamalo-Nenets and Khanty-Mansi Autonomous Okrugs[2]: Pipelines and railway lines cut off reindeer migration routes, loss of 24,000 reindeer, loss of 110,000 km^2 of pasture lands, degradation of 177 km^2 of spawning grounds. Five state farms alone lost 6000 km^2 of pasture lands due to construction of traffic lines. The positive results of the oil boom did not reach the indigenous peoples. In the southern part of the development area the majority of indigenous people lost their traditional modes of liveliood.

Now the Nenets Autonomous Okrug (NAO) is one of the largest oil development areas of the Russian North. Close to 100 oil and gas fields have been discovered. About 25 different oil companies have licenses to develop the resources. An annual volume of more than 14.2 million tons of crude oil is extracted[3] – out of the Russian total[4] of 580 million tons (2007).

The oil and gas industry accounts for 98.8 % of incomes (2006)[5], and there are increasing revenues for the regional budget. Four percent of the oil tax went to a fund for the support of indigenous peoples (culture, education, health care, reindeer husbandry) until 2007, and there are still both federal and regional development programmes. But the numerous tracks of the heavy offroad vehicles and the patches of former tundra damaged by the exploration drillings proceed into the reindeer pastures and hunting grounds and the fish stocks vanish.

Most of the environmental degradation takes place during exploration for hydrocarbons, less during the production stage. It may be worth a thought that the USSR was the only Arctic oil-producing country in which heavy vehicle traffic was not confined to frozen ground and snow cover. Today in Russia, though restrictions exist, control seems to be absent. Certainly, this would raise the costs. Nothing is for free. But what price are people willing to pay?

Besides this, there are other uncertainties: changing weather conditions, exceeded carrying capacities on shrinking pastures, increasingly restricted legislation concerning traditional modes of livelihood in an increasingly confined living space.

Some areas of the NAO are distinctly better off than others. Will they remain so? Are there alternative solutions for the future? Which positive effects does the oil business have for the indigenous people? Can traditional modes of livelihood like reindeer husbandry, hunting, fishing and gathering survive? Can agreements between traditional land users, oil companies and the administration be achieved in a way that allows old and new economies to coexist? What are the preconditions?

These questions must eventually be discussed in the areas of the indigenous peoples, in Russia, by local, regional and federal authorities, scientific institutions and public organisations. It is important that those who are most affected by the negative aspects of the development, the indigenous people, have their say in this discussion. The UN Declaration on the Rights of Indigenous Peoples[6] (2007) states: Development must take place with their “free, prior and informed consent”.

To be able to participate in decision-making they need a well-founded knowledge base: knowledge of their own losses and needs, of the overall development, as well as of the interactions and consequences of what is going on in their territories. Only when founded on solid data, will their voices be heard. This project is an attempt to collect such data and put them into an applicable form for public discussion.

[1] Vakhtin, N. 1992: *Native peoples of the Russian far North.* Minority Rights Group, International Report 92/5, London. 1-36.

[2] Autonomous okrug: a Russian administrative entity with a limited amount of self-governance, a status originally given to areas with a large proportion of indigenous peoples, though mainly administered by Russians.

[3] http://img.custompublish.com/getfile.php/912876.900.psuccsdpds/BarentsMonitoring.NenetsAO.2008.pdf?return=www.barents.no

[4] http://www.eia.doe.gov/emeu/cabs/Russia/Full.html

[5] http://www.adm-nao.ru/?show=statics&id=39

[6] http://www.un.org/esa/socdev/unpfii/en/drip.html (Russian: http://www.un.org/esa/socdev/unpfii/ru/drip.html)

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Extended summary

Introduction

The Nenets Autonomous Okrug (NAO) in northwestern Russia is home to approximately 8000 Nenets and 3000 Izhma-Komi indigenous people. Many of them depend directly or indirectly on reindeer husbandry, fishing and hunting for their livelihood. In the past, reindeer pastures covered almost all of the territory. Now, however, large tracts of land have been degraded by oil prospecting and production or have become difficult to access across oil pipelines. Lakes and rivers are increasingly polluted.

It is important to realise that environmental map data in Russia are available to the public only to a very limited extent. Further, a complete overview is lacking, and the situation changes quickly. A continually maintained map database would be an indispensable tool to track development.

The project MODIL-NAO is a collaboration between the Norwegian Polar Institute and the Association of Nenets People Yasavey. The principal objective is to give the indigenous population of the NAO a tool – a GIS map database – to promote their interests in an area of intensive industrial development.

A major source of data for the project is a questionnaire campaign directed towards traditional land users, mainly reindeer herders. Topics include all spheres of their living, their traditional occupations, their socioeconomic situation, and the condition of their natural environment. Satellite images in GoogleEarth were used to monitor visible, physical damage of the tundra. These data are combined with various publicly available data in a bilingual (Russian and English) GIS database.

This project report is published in English and Russian.

The situation for traditional modes of livelihood

Reindeer husbandry is the most prominent traditional occupation in the NAO. Most herders move from their settlements close to the winter pastures in the forest tundra belt northward to the summer pastures in the barren tundra. Most of them are settled and semi-nomads working in brigades of cooperatives or as private reindeer herders. Lately a number of clan communities (*rodovye obshchiny*) have been formed, mainly in the village Nelmin Nos. The indigenous people participate both in subsistence and commercial fishing. Fishing provides a subsidiary occupation for reindeer herders, as well as other traditional subsistence activities like hunting and gathering. Several reindeer herding cooperatives also have fishing and hunting brigades, while a minor number of cooperatives have mainly specialised in fishing.

The unemployment rate (registered people without a monetary income) among indigenous people is high. Individuals with more advanced education often leave the area. Life expectancy is extremely low – 40-45 years – because of poor access to medical care and alcohol abuse. These and other factors go hand in hand with a general degradation of indigenous society.

Oil development in the tundra exacerbates the problem. An uncontrolled situation has developed around oil and gas exploitation in many parts of the NAO, where some oil companies are accused for grave violations of ecological standards and Russian legislation. Numerous oil spills and other degradations of the upper soil layers occur periodically in the tundra, inflicting damage on the Arctic natural environment, which is the basis for the livelihood of the indigenous people.

Since the Russian socio-economic crisis of the 1990s herds have been rebuilt and stock numbers seem to have flattened out at a level around 150,000-160,000 reindeer. The overall productivity is still rising. There is no direct relation between oil development in an area and the economic well-being of the reindeer herding enterprise using the same area. State subsidies and support programmes for reindeer husbandry at the regional and federal level have certainly been a major reason for the overall recovery of reindeer husbandry after 2000. Additionally, oil companies also pay compensation for ceded pasture lands, but there are no statistics about this: such compensations are based on a variety of individual, often confidential, agreements.

Juridical situation and traditional land use management

Three federal laws are completely devoted to the rights of indigenous peoples. Laws supporting indigenous peoples' rights have a general declarative character and do not specify the duties of the non-indigenous resource extractors – such as oil or gas companies - to preserve these rights.

According to NAO legislation, persons working in reindeer husbandry and their authorised representatives have the right to request ecological and ethnological impact assessments of activities potentially infringing the interests of reindeer husbandry and

other traditional occupations and to participate in carrying out such impact assessments.

The basic mechanism of environmental protection which was used in Russia until 1 January 2007 was the State Environmental Assessment (SEA). Practically of all kinds of economic activities were subject to SEA. After a legislative modification from 1 January 2007, only the extent to which the documentation of the planned industrial project conforms with environmental requirements must be assessed. However, technical regulations pertaining to environmental protection are absent. There is a certain danger that proper environmental assessments will not be carried out at all.

There are no laws regarding ethnological assessments, although such assessment processes have been carried out in some places of the Russian Federation.

Indigenous peoples' participation in decision-making regarding how hydrocarbon projects are carried out is possible at several stages of a project, for instance, through referenda, coordination meetings, Public Environmental Assessments and – if carried out – State Environmental Assessments.

According to the previous version of the Land Code indigenous peoples engaged in traditional economic activities were entitled to use the land, i.e. reindeer pastures, for free and unconditionally. As of 2001 reindeer pastures can be leased to companies bythe state if traditional land users are compensated. Although traditional land users are supposed to play a role in leasing decisions, how "voluntary" this is in reality is open to question.

It is also noteworthy that reindeer herders only receive compensation for the calculated loss of reindeer pastures and reindeer. There is no compensation for losing fishing, hunting and gathering resources, which contribute substantially to reindeer herders' subsistence economy.

Federal and NAO legislation open for the formal establishment of Territories for Traditional Nature Use (TTNU). Today, eight out of 22 agricultural production cooperatives have established TTNUs at a regional level. These lie within lands already allocated to reindeer husbandry and other traditional occupations already during Soviet times. Unfortunately, the regulations for such territories lack provisions on how to manage them. However, they include provisions stating that the natural resources within such territories shall be managed and their monitoring carried out by Northern indigenous communities or organisations representing them. This includes monitoring compliance with the main requirements of environmental and land management legislation applicable to the land use for economic purposes. Allocation or withdrawal of land for purposes other than traditional economic activities shall be agreed upon with local self-government bodies or determined through local referendum.

In light of this legislation it is noteworthy that not all the companies make agreements with reindeer herders. Only three companies have agreements with reindeer herders that cover the entire period of their license agreements. Most agreements with herders are only valid for 1-2 years, whereas the company's license is for a longer period. Many agreements are confidential and cannot be evaluated by public opinion, neither can it be ascertained that the indigenous contract partners fully understand the consequences of the agreement they sign. There is no mechanism for the investigation of reindeer herders' opinions on land allocation issues and oil companies' operations.

One of the challenges in efficient management of traditional nature use lands is the lack of up-to-date land use plans for traditional activities. Other challenges are the lack of proper management of TTNUs and ambiguity regarding which government authority is responsible for this, the lack of compulsory assessment of industrial projects' impact on the traditional lands and lifestyle of the indigenous people and the absence of a common forum in the Okrug where representatives of government authorities, industrial companies and indigenous peoples could negotiate and make common decisions to achieve a balance of interests of all stakeholders.

Oil-and-gas development in relation to indigenous peoples in the NAO

Prospecting for hydrocarbons in the NAO began in the 1960s. The real oil boom in the area started in the 1990s, in the Bolshezemelskaya Tundra, the Pechora River delta and, to a minor extent, on Kolguev Island. The main regions of oil production are Kharyaga with large surrounding areas in the southern Bolshezemelskaya Tundra, and Varandey and Yuzhno-Khylchuyu in the northern Bolshezemelskaya Tundra. Pipelines connect these areas, or are planned to be built. Oil is exported by pipeline southward, and by ship from the terminal of Varandey. There is a minor terminal for local export on Kolguev Island. Another large terminal is planned at the village of Indiga. The maps in Part 2 of this report show the situation.

To meet environmental standards in the rapidly developing hydrocarbon resource area is a challenge. Pollution of the Pechora River started in the 1950s, mainly from the early prospecting in the upper part

of the river, in the Komi Republic. Spill water dumped into the river, as well as oil spills, affect fish species. Most of the drinking water of the NAO comes from the Pechora River. The main problematic, persistent pollutants are arsenic and mercury, which are derived from industry in the Komi Republic. Some licenses have been withdrawn. There is also a high pressure on reindeer pastures. Pastures with sufficient quality of lichen for the reindeer have been reduced by almost 20% from 1984 to 2002.

It was not possible to discover whether the issued licenses for hydrocarbon development are based on positive decisions of the State Environmental Assessmet Committee or not. Most of the license agreements have been found to comply poorly with legal requirements to consider NAO's indigenous peoples' rights. Only few of them contain the subsoil resource user's responsibility to make agreements with indigenous peoples. In most instances it is up to the license holders whether to enter into such agreements or contracts with the representatives of indigenous peoples. Only one out of 38 analysed agreements stipulates license holder's liability to compensate for losses as a result of resource development operations as demanded by legislation. The analysis of license agreements also revealed a negative trend. Most of the license agreements, which to various extents stipulate subsoil users' liability to observe the rights of indigenous peoples, were concluded in 2001-2003, while those recently made (2008-2009) do not provide for such liability.

License agreements oblige license holders to ensure soil recultivation in the areas damaged because of natural resources development, as well as to comply with other environmental protection requirements. At the same time, as reality shows, the environmental protection requirements are not being observed by all license holders. This situation violates the rights of NAO's indigenous peoples to protection of their original environment and traditional way of life.

It is widely understood that unlawful conditions prevail in connection with many oil installations. Some facilities, especially older ones, are built according to low safety standards and frequently experience minor failures. Unfortunately, there is a tendency among many companies to withhold information on environmental damage like minor leakages and pollution discharges. The relevant government agencies have no practical possibility or sufficient funding to really control pollution, although they know well the real situation.

The basic method applied to protect nature is the development of a framework of protected areas. But even if the borders are not touched, polluted waters do not stop at their boundaries. Eighty percent of the land east of the Pechora River is estimated to be degraded if pollution restrictions are not intensified.

All land assigned to reindeer husbandry is state land. The extent of reindeer pastures has decreased from 90 % to 73 % of the NAO. The remaining land has changed its status through negotiations. Negotiations for agreements regarding compensation for lost land are the only way of influencing the development. Despite certain legal guarantees, indigenous people have no opportunity to change major, politically approved decisions. It is also questioned if the establishment of TTNUs has any practical effect, as now many major oil development areas are within TTNUs.

There are numerous examples of good relations at the local level between companies and reindeer herders. Companies often assist with helicopter transportation of people and goods between city, villages and pastures.

Indigenous people in general have a large capacity to adapt to environmental changes, for instance, through selecting the grazing areas which are most suitable under the actual circumstances at any time. But alternative areas are getting fewer and smaller, while increasing portions of the land become useless for traditional occupations.

The questionnaire survey and its results

Reindeer herders and other villagers from six areas within the NAO were interviewed about diverse spheres of their lives, their traditional occupations, their socioeconomic situation, and the condition of their natural environment. Information about land use was drawn on maps. The respondents were mostly interviewed by co-villagers who were trained for this purpose at seminars in the okrug capital Naryan-Mar. The six study areas (Kanin Peninsula, Kolguev Island, the villages of Indiga, Nelmin Nos, Krasnoe and Khorey-Ver) cover areas of absent, moderate and strong physical impact from oil-related activities.

The analysis showed that many respondents are engaged in traditional economic activities and such activities have decreased only slightly from the last generation to the present one. For people engaged in traditional economies, related activities account for 65-100 % of their total work. For most areas, the traditional food proportions of their diet is estimated to 61-83 %. Of the traditional foodstuffs consumed by reindeer herders' (which were the majority of the interviewed people) 40-70 % are reindeer products, while fish, wild game and wild plants make up 10-25 %, each.

There is a huge difference in the annual income of active reindeer herders (200 000 - 600 000 RUR) and people involved in other traditional activities (30 000 - 50 000 RUR). Respondents usually underestimated the monetary value of the contribution of traditional foodstuffs they consume, which may have an annual average value of 65 000 RUR – not taking into account other traditional products like skin and fur clothes.

The high consumption of traditional food indicates a high degree of indigenous people's vulnerability in the event of the failure of their traditional sources of subsistence. They are vulnerable to degraded pastures, hunting and fishing areas, and territories for gathering wild plants due to industrial development on the land.

Special circumstances occur in the responses from one village, Nelmin Nos, where the contribution of traditional foodstuffs to the diet is very low. At the same time, they have a very low average income and cannot afford to buy much food. Their diet appears to be nutritionally inadequate. There is no oil development in the area today. The reason can probably be found in a combination of two factors: One is mismanagement - the reindeer herd has decreased from 12 000 to 4200 head since 1998, mainly during the phase of restructuring of the cooperative before 2001. The cooperative has since dissolved into many clan communities. The other is the proximity to the okrug capital, Naryan-Mar, which has resulted in lawful and unlawful exploitation of the natural resources (including extensive poaching) by outsiders.

Three of the six study areas, Krasnoe, Khorey-Ver and Kolguev Island, have experienced oil development. All respondents from Krasnoe noted the negative effect of oil production, mainly pointing at the pollution of lakes, rivers and pastures. At the same time, some of them noted that their living conditions have improved (construction of houses, roads, assistance for transportation). Respondents from Krasnoe take advantage of the proximity of their settlement to the main market of traditional products in Naryan-Mar.

Those respondents from Kolguev having their herds on the oil development side of the island noted negative environmental effects.

Most respondents from Khorey-Ver stated that oil development has improved their living conditions and even the conditions for reindeer husbandry. The oil development opened up opportunities for new foodstuffs, for the use of helicopters for transportation, and hopes for compensation. They are successful reindeer herders with high incomes and were not interested in discussing the state of the environment. Khorey-Ver was considered important for the project because the major facilities of the Kharyaga oilfield and adjacent fields, including a major pipeline system, divide the winter pastures of the reindeer herding cooperative into two. Nevertheless, respondents noted that there were almost no constructions on their routes. Although it was not revealed from the interviews, it seems that reindeer herders have ceased using their pastures on the southwestern side of the Kharyaga pipeline, and herds are concentrated to the east of it in winter.

Respondents from Indiga and the Kanin Peninsula, who today live far from oil-related activities, are generally afraid of any future industrial development in their area, which they think would degrade the environment. An oil terminal with a connecting pipeline is planned at Indiga.

A common theme among respondents concerning the issue of who determines the future of their family or community is that they have to rely on themselves. They obviously avoided blaming others. Still, when asking about threats towards their livelihood, they named ecological threats connected with oil production like the degradation of pastures, water quality and berry fields and the reduction of wild animal stocks, In addition, they referred to threats like poaching and the many homeless dogs that are left by newcomers. Main threats in places unaffected by oil industry are considered to be unemployment, alcoholism and distant educational facilities.

Almost all respondents said that they do not see their individual participation in a future arrangement. They did not show a determination to change of their subsistence pattern or look for alternative ways of supporting themselves. At the same time, their responses to the questionnaire made clear their high level of dependency on traditional subsistence activities. This indicates that if these subsistence activities are negatively affected it will have serious consequences on their welfare.

Concerning the attitude of oil companies towards indigenous peoples, the interviews revealed that companies formally comply with the requirements of public discussions and agreements with indigenous communities, although there is no fixed procedure for these discussions. Such procedures should aim at minimizing negative impacts and at facilitating the cooperative monitoring of industrial projects to ensure they comply with agreements and environmental regulations.

Recommendations to stake-holders

A list of recommendations to stake-holders based on the output of the project is provided in Chapter 1.6.2.

The GIS database

The GIS database, in addition to the present report, is the main outcome of the MODIL-NAO project. The database is published on the Internet using a GoogleEarth-based system that does not require special skills or software for the users. Information about how to access the database will be provided on the project website http://npolar.no/ipy-nenets and Yasavey's website http://www.yasavey.org.

It is hoped that the database will be used by the indigenous people to make informed decisions about their future, to discuss land use plans with government authorities, to negotiate compensations, and so on. It is also hoped that the representatives of the Nenets people will have the resources to maintain and further develop the database in the future.

Key findings

1) Difficulties that affect reindeer herding units, apart from deterioration and reduction of the pasture areas, include such social factors like poor management, the loss of prestige in reindeer husbandry as a livelihood, loss of traditional knowledge, a significant change of values in the Nenets society, social apathy, unemployment, and, in connection with the latter, the abuse of alcohol.

2) There are frequent complaints by local populations regarding oil companies and their responsibility towards pollution of pastures, illegal waste disposal, pollution of water resources, decrease of fish stocks, poaching by oil workers and others, and attacks by stray dogs on domestic reindeer.

3) In areas where future oil development is expected, people are afraid of its negative influence on traditional land use. In areas where oil development has been a reality for some time, people noticed this negative influence but simultaneously saw an improvement of the economic situation due to investments by oil companies into the system of social security.

4) Traditional land users have little to no influence over the most of the development of oil and gas installations, apart from providing minor technical recommendations.

5) The high consumption of traditional food among traditional land users indicates a high degree of indigenous people's vulnerability in the event of reduced or eliminated traditional sources of subsistence. The permanent replacement of traditional food by market food will seriously affect the health and the general wellbeing of the indigenous population.

6) Environmental regulations are not satisfactory, as there are no effective mechanisms of control. A severe deficiency is the lack of control over the use and misuse of the environment; companies unlawfully use tracked vehicles on summer pastures, pollute lakes and rivers, etc.

7) Only a few companies fulfill their legal obligations towards indigenous peoples; in recent years' the trend shows that such liabilities are no longer included in the license agreements.

1. General Part

1.1. About the project

1.1.1. Background

This project was developed in 2004, although funding could not be secured until the International Polar Year starting in 2007.

Approximately 8000 Nenets and 3000 Komi people (2005), many of them involved to some extent with reindeer husbandry or other traditional modes of livelihood, live in the Nenets Autonomous Okrug (NAO). Large proportions of Nenets' and other peoples' reindeer pastures in the east of the NAO, and especially in the neighbouring Yamal-Nenets area, were devastated by reckless oil prospecting in the 1960s to 1980s. The last 10-15 years witnessed an increasing interest in the hydrocarbon occurrences in the NAO. Naturally, people there are worried about their future. In addition to the high unemployment among indigenous peoples, the situation in the reindeer husbandry sector in the 1990s was deteriorating: decreasing numbers and misappropriation of reindeer, absence of appropriate marketing schemes for products. These and other factors provoke a general degradation of indigenous society.

Rules for implementing federal laws on land ownership and land use are still largely absent in the NAO. Land can be allotted for industrial and resource-extractional purposes, while traditional users of the land receive insignificant financial compensations compared to the "bonuses" paid by the companies to the state. Participation of indigenous peoples' organisations and representatives of the concerned communities and farms is a fairly new achievement. Processes result in agreements in which the amount of financial compensation is determined. These agreements are kept confidential.

Nenets and Izhma-Komi people in this region have for many centuries maintained a traditional way of life rooted firmly in reindeer husbandry. It is mainly these who suffer as a result of the attitudes of newcomers to the Arctic natural environment, in spite of all legal guarantees.

A severe obstacle for traditional land users to defend their rights is the lack of data providing an overview of the situation. Comprehensive monitoring through regional authorities is not easily available to the public, while the situation changes considerably every year. A continually maintained map database, available to all relevant groups (and the general public), would be an indispensable tool to monitor development.

1.1.2. Aims

The principal objective of the present project is to give the indigenous population of the Nenets Autonomous Okrug a tool to promote their interests and traditional ways of life, a GIS[7] database containing data needed as a basis for decision-making.

At the same time, the database can be used by the administration and oil companies. It provides some of the necessary knowledge for planning activities, discussing land rights issues and documentating ongoing actions. The project will train local indigenous people in the use of GIS databases. The project will develop ways of collaboration between scientific institutions and indigenous peoples' organisations and can function as a pilot project for other areas in the North.

It is thought that the representatives of the indigenous peoples in the NAO continue to maintain and update the database to track the ongoing development and to make the data more complete. Additional funding will be necessary to do so. Funding institutions are urged to consider this need.

1.1.3. Process

An important aspect of the project is the fact that the idea of the project came from the representatives of the Nenets people themselves, from the President of the Association of Nenets People Yasavey. This occurred in late 2003. It took four years until funding could be found under the auspices of the International Polar Year.

1.1.3.1. Project participants

Finding suitable collaborative partners was not a difficult task. It was obvious from the start that the main consortium should be composed of the two institutions that had developed the project, the Norwegian Polar Institute (NPI) and Yasavey. The combination of a scientific research institute and an indi-

[7] GIS: Geographical Information Systems

genous peoples' organisation seemed to be favourable to safeguard both scientific quality and a sufficient involvement of the people who need the results of the project. Yasavey's long experience in carrying out various projects made that effective work could start up quickly.

Given Norwegian funding, it was advantageous that the NPI would lead the project through senior research scientist Winfried Dallmann, who had been the main project developer.

GIS expertise was recruited from the NPI, where it was easy available and saved external funding. The GIS expert of the project was Boele Kuipers. The fact that President of Yasavey, Vladislav Peskov, co-leader of the project, is a trained expert on Informatin and Communication Technology, greatly facilitated the project.

Apart from this, it was desirable to recruit as much as possible of the needed expertise in Russia, preferrably among experts who are familiar with the situation of the indigenous peoples in the Russian North. The anthropologist of the project was Olga Murashko from Moscow (Institute of Anthropology, Moscow State University), expert of the Russian Association of Indigenous Peoples of the North (RAIPON), leader of RAIPON's Information Centre and Councelor on Northern indigenous peoples to the Committee on Nationalities of the Russian State Duma. Olga Murashko had a long experience of carrying out questionnaire surveys in indigenous peoples' areas.

During the preparation of the project proposal we realised that the project would benefit significantly by involving Russian legal expertise. On the one hand we wanted to ensure that the project did not infringe Russian law by publishing data that, in their accumulated form, might be considered confidential information. We contracted the Legal Centre Rodnik, which had lengthy experience working for indigenous peoples. The main project contact was Ekaterina Khmeleva, a lawyer

To meet the requirements of the IPY Joint Committee concerning the international – not only bilateral – character of the projects they would endorse, the original project was amended with an international expert group in the fields of anthropology, environmental management, ecology, reindeer husbandry and community impact assessment. Some of the experts were leaders of IPY-endorsed and other projects with overlapping interests, with which cooperation was agreed on. Experts came from Norway, Russia, Finland, Canada and Germany. The main task of the expert group was to review the results at the end of the project. Some of the experts were to help write the conclusions.

To assist the project at the NPI, Zoia Vylka Ravna was contracted. She is a Nenets from the investigated area and is settled in Tromsø and was therefore of great help in practical organising, communication, translation and interpretation at meetings. Yasavey enganged several project workers part-time, who would collect and manage data, prepare meetings, organise the questionnaire survey, etc. Nikolay Shubin, Filipp Taybarey, Aleksandr Nosov and Viktoria Vylka merit special mention in this regard.

1.1.3.2. Relations with the authorities

While developing the project it was intended to cooperate with regional authorities. In 2006 the governor of the Nenets Autonomous Okrug pronounced his support for the project and nominated heads of two relevant administrative departments as contact persons who would assist in acquiring data for the database that the authorities already possessed, and also to bring administrative needs into the project.

During summer 2006, before the project was funded, a new governor replaced all department heads. Contacts with the Department of Natural Resources were established. They accepted that the project to be carried out, but did not show interest in the data we were going to produce. Nenets Information and Analytical Center (NIAC) was appointed contact agency for the authorities. NIAC is a data centre under the NAO Department of Natural Resources, a department also in charge of environmental issues.

Contacts with the NIAC had been established earlier, but an agreement on their contributions to the project was not achieved. During the project NIAC assisted only with the production of basic map material for the questionnaire survey, but never provided any data in spite of repeated requests.[8] In the database, all data referred to as derived from the NIAC are from products delivered to Yasavey or others prior to the start of the present project.

Representatives of the project were invited to partcipate in the EcoPechora scientific conference in 2008 and the Arctic Perspectives 21th Century conference in 2009 in Naryan-Mar, organised by the NAO Administration.

[8] It was peculiar that – after learning that our project would map heavy vehicle tracks on satellite images – they did the same work parallel with us without informing us or asking to join forces (V. Kozyrenko, Nenets Information and Analytical Centre, oral presentation "Land use monitoring in NAO using satellite remote sensing data", EcoPechora Conference, Naryan-Mar, 13-14 May 2008). The overall inpression was that the NIAC – or their superior department – did not like that a project with foreign funding was producing data that they should have themselves but did not.

Preliminary results of the project were repeatedly presented to different levels of the NAO authorities. The latest presentations of the project were done in July 2009 at the international scientific-technical conference "Arctic prospects –XXI Century" and at the "International Seminar on Traditional Knowledge of Indigenous Peoples: Problems of Preservation and Protection of Rights - International and National Aspects" in October 2009.

In general, representatives of the NAO authorities express their interest in the information collectedby the project, especially in the map data combining traditional knowledge and modern industrialisation.

Relations with the Office for Reindeer Husbandry Management of the NAO Agricultural Department were good and the project received relevant data from this office. The office, however, was reorganised after the transfer of certain administrative powers from the NAO to the Arkhangelsk Oblast by 1 January 2008.

At present Yasavey and the project cooperate with the NAO Department on Indigenous Peoples and Traditional Economies, which has adopted part of the functions of the former NAO Agricultural Department. It is believed that the compiled database will be accepted by the Department and serve as an additional tool for decision-making. In addition, we believe that the database will also be of interest for the Administration of the Zapolyarnyy District and the municipal administrations, which now have authority on land issues in the NAO.

1.1.3.3. Data acquisition

Collected data consist of all sorts of map data, statistical data (population, settlements, reindeer husbandry), legal regulations, data on indigenous land use, socio-economy of indigenous people, as well as oil and gas development. Data were acquired from published sources, government authorities, satellite images and through a questionnaire survey among people in six indigenous villages. Data from oil companies were not requested, because they would presumably not have been more detailed than what is publicly available. Photos were added. All data are derived from open accessible and official sources.

1.1.3.4. Questionnaire survey

A major source of data for the project was the questionnaire survey directed towards traditional land users. A questionnaire on traditional land use issues was formulated by the project's anthropologist, Olga Murashko, and amended by the project staff and members of the expert group. The questionnaire asks for detailed information on the background of the respondent, his or her activities and recent changes in traditional modes of livelihood like fishing, hunting, sea mammal hunting, gathering and reinder herding, supplementary economy, sacred places, structure of incomes, influence of oil industry on livelihoods, and general reflections on future development.

Seminars were held in Naryan-Mar, where Olga Murashko trained representatives from villages in conducting the survey. These representatives went to their villages and carried out the interviews. Interviews were transcribed by hand written (later typewritten), recorded on tape and relevant information was drawn on maps. The map information was transferred to kml files (GoogleEarth). All registration work was done in the NAO, in the facilities of Yasavey.

The detailed responses and personal information of the respondents are confidential. The originals are filed by the Association of Nenets People Yasavey. Copies of the written material are stored by the project leader and the project anthropologist. This report contains the analysis of the results (Appendix 1), while many of the data form the basis of Part 1, Chapters 1.2 to 1.5. and maps in Part 2. Citations of answers of respondents are anonymous.

Box 1: Geographical distribution of interviews

village	industrial activity	question-naires	maps (kml files)
Nes	no industrial activity	28	20
Indiga	no industrial activity; planned pipeline and oil terminal	16	16 (18)
Bugrino (Kolguev)	moderate industrial activity	14	0 (12)
Nelmin Nos	none now, though some past industrial activity	20	20
Krasnoe	intensive industrial activity	15	15
Khorey-Ver	intensive industrial activity	8	4
Karatayka	almost no industrial activity	1	1
total		**102**	**76 (90)**

From left: Aleksandr Belugin (Information Centre Yasavey Manzara), Winfried Dallmann (project leader), Galina Platova (Deputy Chair, Yasavey), Olga Murashko (project's anthropologist), Boele Kuipers (project's GIS expert)

Vladislav Peskov, President of Association of Nenets People Yasavey, consortium partner of the project

Zoia Vylka Ravna, project assistant, translator and interpreter

From left: Viktoria Vylko (interviewer from the village Krasnoe), Olga Murashko (project's anthropologist), Zoia Vylka Ravna (project assistant, translator and interpreter), Filipp Taybarey (project assistant, Yasavey)

During a snow mobile trip on the Pechora River to the Nenets village Nelmin Nos. In front Winfried Dallmann (project leader)

PLATE 1: Images from project meetings

1.1.3.5. Satellite image interpretation

Satelllite image interpretation at a detailed scale was carried out to visually monitor physical damage of the tundra and to locate installations. GoogleEarth (http://earth.google.com/) provides high-resolution images for a number of areas within the Nenets Autonomous Okrug (Maps O-5, O-8).

We tried to acquire images covering other areas of special interest in the frame of collaboration with the IPY-supported EALÁT project (http://www.ipipy.org/) from NASA through an IPY-related cooperation agreement. This attempt was not successful, because the envisaged NASA funding finally was not allocated to EALÁT. On the free market, the few available relevant satellite images were too expensive for the project. GoogleEarth, however, significantly improved its coverage in the NAO during the project period, so we decided to base our work solely on this. Satellite image interpretation was carried out by Winfried Dallmann at the NPI.

1.1.3.6. Legal analysis

The legal analysis carried out by the Legal Centre Rodnik is threefold. The first part is a summary of federal and regional legislation relevant for indigeous peoples, with emphasis on industrial development in their homelands. Some evaluation and comments are added to the individual chapters. The entire report is presented in Appendix 2, while an extended summary is given in Chapter 1.2.3.

The second report is an analysis of the licenses granted to extracting companies, which revealed that the majority of issued licenses does not take significantly care of indigenous peoples' rights as guaranteed by legislation. It also concluded that observed damage of the tundra is not in concordance with lawful activities.

A third task for the legal centre was to evaluate the lawfulness of publishing the acquired and accumulated data in the report and in the GIS database. No data were acquired in unlawful ways, but some data are kept confidential because of their private nature, while others are held back because their publication might provoke negative reactions. The published data are not considered to be problematic by the Legal Centre Rodnik.

1.1.3.7. GIS database development

The final GIS database, the main output of the project, is intended to be publicly available through the Internet. It must fullfil the demands of being easy to run and maintain by an organisation like Yasavey, with a time horizon of more than five years, differentiated ownership of source data, restricted access to some data determined by the owner, output of combined data and information to the browser and with the possibility of remote contol. At the same time it must have a low cost and low maintenance level.

Parallel with this project GoogleEarth developed as a powerful database with the ability to host projects like the present one, but technical solutions and routines had to be found to realise the transfer of the project data into a satisfactory GoogleEarth-based application. Using GoogleEarth imagery as a map background for the database also solved the problem of availability of sufficiently detailed digital topographic map data covering the NAO. At the same time it would gain the benefit of making available other GoogleEarth resources in combination with the project database.

The initial plan to develop the database on the Internet with constant access by the project participants had to be abandoned. The database was developed using the ESRI software ArcGIS, which was available and functional at the NPI, while the GoogleEarth-based application was developed.

1.1.3.8. Progress

Progress of the project was slower than anticipated in the initial plan. The project period had to be extended twice with half a year, from two to three years (2007-2009 instead of 2007-2008). The main reasons were delays caused by:

- the difficulty of finding staff to employ to work with the project at Yasavey;
- the difficulty of finding people from NAO villages who would work with the questionnaire survey;
- late delivery of data from some project participants and authorities;
- the lack of success in acquiring data from the NIAC;
- the need to develop a GoogleEarth-based database application while GoogleEarth services were developed at a global level;
- the lack of success in acquiring additional satellite imagery;
- the need to involve the international expert group first after the the compilation of the database and the report, instead of – as it was planned – to give them continuous access to the developing database via the Internet.

1.1.4. Evaluation of results

The project has been carried out satisfactorily, despite minor deviations from the original schedule (one year delay) and the envisaged results.

One deviation is related to the data collected. Concerning the issue of how industrial facilities affect traditional occupations, we got only general data that do not refer to individual facilities. Consequently, these data were not included in the GIS database. Instead, part one of this report has been written in a more extended way to cover this issue. Apart from this, the collected data are roughly according to the plan, although some more modern satellite images, as well as interviews from further villages and traditional land use cooperatives would have been desirable. But since the database is expandable and easy to maintain, this will hopefully be achieved by subsequent projects in Russia.

Another deviation is the process of producing the GIS database, as well as the technology and layout of the final database. During the project period, GoogleEarth developed easily applicable tools for presenting this sort of data, thus fulfilling our demand of a low-cost, low-maintenance system using open-source tools, applicable for remote data sources and remote clients. Final solutions were developed during the late, overdue phase of the project. On the one hand, this was a disadvantage with respect to the availability of data for project partners during the project – files and prints of maps with database excerpts had to be distributed. On the other hand, this led to smart technical solutions with an easy user interface. Everybody who has downloaded the free version of GoogleEarth can access the database by opening an Internet link.

A variety of relevant data has been collected and assessed in the project report. These comprise both new data of interest for indigenous representatives and data of interest for people from outside the region who want to dive into the complex issue of land use management in the NAO.

In conclusion, the main goal of the project – to produce a database tool that can assist indigenous representatives of the Nenets Autonomous Okrug in discussing land use issues – has been achieved, although follow-up projects to enlarge the database should be carried out.

1.2. Indigenous population of the NAO

1.2.1. General

The Nenets Autonomous Okrug was established in 1929 on the initiative of the Nenets people. Its area measures ca. 180,000 km^2, extending 950 km from west to east and 320 km from south to north. According to the 2002 NAO census, the area's population amounts to 41,546 people, including 7,754 Nenets people, as well as about 3,000 Russian-speaking 'old settlers' and Izhma-Komi reindeer herders. Data from 2005 indicate the total NAO population to be 41,657, of which 8,302 are Nenets (Box 2).

Box 2:
Population of numerically small indigenous peoples of the North (NSIPN) in municipalities of the Nenets Autonomous Okrug, end of year 2005 *see tables 2.4.3, 2.4.4*

Municipality	Population, end of 2005	Municipality	Population, end of 2005
Naryan-Mar/Iskateley, 2004*	*1582	Pesha	106
Amderma, 2004*	*262	Promore-Kuya	916
Andeg	59	Pustozero	243
Velikovisochnoe	58	Telviska	61
Kanin	785	Timan	482
Kara	542	Khorey-Ver	432
Kolguev	393	Khoseda-Khard	293
Kotkino	41	Shoyna	107
Malozemlya	1008	Yushar	403
Oma	529	**TOTAL**	**8302**

1.2.1.1.The Association of Nenets People Yasavey[9]

The Association of Nenets People Yasavey was established on 12 December 1989 at the First Founding Congress of Peoples of the North in Naryan-Mar. The Congress then adopted a decision to set up an association, a voluntary public organization to unite Nenets and other indigenous pelpes living in the NAO.

In the Nenets language, 'yasavey' means 'a guide knowing the area very well'. This word was aptly chosen to reflect the tasks and goals of the association: to solve socio-economic problems of the Nenets people, facilitate the formation of their national consciousness and maintain their culture and traditional way of life. Today, Yasavey is channeling the efforts of the Nenets to protect their lawful rights and interest in order to

- implement measures aimed at conserving the historical-cultural environment of the Nenets people;
- revive, maintain and develop traditional industries, spiritual traditions, and health and medical practices based on centuries-old customs and traditions and on achievements of modern science;
- secure the rights of the Nenets people as provided by federal law – including the rights to possess, use and dispose land and other natural resources available in the areas of traditional nature management, which form an integral heritage and historical homeland.

Yasavey participates in the development of programmes for social and economic development of the NAO; in particular, it promotes its representatives into public bodies and local self-government authorities of the area, facilitates the conservation and maintenence of traditional activities, habitat and way of life as basis for the Nenets people to exist, facilitates the preservation and strengthen the use of the Nenets language and participates in the programme for training qualified Nenets personnel.

The association is involved in economic, social, scientific and cultural activities to develop joint efforts in protecting Nenets' rights and environment.

1.2.1.2. Izhma-Komi Association Izvatasyas

NROD Izvatasyas is a NAO regional branch of KROD Izvatas of Komi-Izhma people, Izhma village, Komi Republic. It cooperates with the Komi Republic Ministry of Nationalities and the Interregional Social Movement Komi Voityr of the Komi people. It was

[9] www.yasavey.org

founded in 2002. The first unions of Izvatasyas were established in the villages Kharuta and Karatayka. Its goals are to conserve and develop Komi traditions in the NAO, to enhance the status of the ethnic community of Komi-Izhma people living in the NAO, to implement social, public and charitable tasks for the benefit of the people, and to preserve the Izhma-Komi dialect of the Komi language and expand its usage. Main lines of activities are the arrangement of and participation in congresses, meetings and conferences of Izhma-Komi people and other events, raising the awareness of such activities in the media, and applying for funding to support projects and programmes, etc.

1.2.2. The situation for traditional modes of livelihood in the NAO

Reindeer husbandry is the most prominent traditional occupation in the NAO, for both the Nenets and Izhma-Komi peoples living in the okrug. Most herders move from their settlements close to the winter pastures in the forest tundra belt northward to the summer pastures in the barren tundra. While many are settled and semi-nomads working in brigades of cooperatives or as private reindeer herders, the vast tundra areas are still roamed by individual groups of fully nomadic reindeer herders (Box 3).

The indigenous people participate both in subsistence and commercial fishing. Fishing provides a subsidiary occupation for reindeer herders, as well as other traditional occupations like hunting and gathering. Several reindeer herding cooperatives also have fishing and hunting brigades, while a minor number of cooperatives have mainly specialised in fishing.

The unemployment rate (registered people without a monetary income) among indigenous people is high. Individuals with more advanced education often leave the area. Life expectancy is extremely low – 40-45 years – because of poor access to medical care and alcohol abuse. These and other factors go hand in hand with a general degradation of indigenous society.[10]

The indigenous and rural population is exposed to major ecological problems due the decreasing number of reindeer pastures and degraded environmental conditions, which are related, according to people's opinion, to the development of oil and gas fields as well as roads and pipelines. One cause is the loss of pasture land, where intensive drilling activities take place, associated with extensive degradation of tundra ground through driving with heavy vehicles on unfrozen ground in summer. The second one is the pollution of rivers, lakes and ground water through released fuels and chemicals. The third cause is the pipelines cutting off migration routes, although over- and underpassages exist.

According to the Association of Nenets People Yasavey, the hot spots in the relations between indigenous people and the oil companies, which need the special attention of the government authorities, are the following development projects:

- Kharyaga field
- Kharyaga-Indiga pipeline
- Renewal of the Kumzha field development
- Development of commercial solid mineral deposits (Bugrovka River, Kanin Peninsula)
- Varandey–Yuzhnoe Khylchuyu and Kharyaga–Yuzhnoe Khylchuyu pipelines
- Varandey oil export terminal
- Development of the Val Gamburtseva, Osovey, and other deposits

Since the Russian socio-economic crisis of the 1990s, when there were less than 100,000 reindeer left, herds have been rebuilt and stock numbers seem to have flattened out at a level around 150,000-160,000 reindeer (Figure 1-1). Although fluctuations occur, partly or mainly due to "bad winters" and problems in the management of individual collective farms, the overall productivity is still rising. A few cooperitives show clear negative trends that are obviously due to internal problems of management. There is no direct relation between oil development in an area and the economic well-being of the reindeer herding enterprise using the same area.

State subsidies and support programmes for reindeer husbandry at the regional and federal levelhave certainly been a major reason for the overall recovery of reindeer husbandry after 2000. Additionally, oil companies also pay compensation for ceded pasture lands, but there are no statistics about this: such compensations are based on a variety of individual, often confidential, agreements.

According to the Department of Finance and Economic Development of the NAO, the production of agricultural enterprises amounted to 511.8 million roubles in 2007, that is 4.5 % more than in 2006. A number of measures to develop the agrarian and industrial sector under Russia's agricultural support policy were adopted by the regional government authorities.

[10] Kharkova, T.L. and Kvasha, E.L. 2008: Features of mortality rates and life expectancy of the population of the Russian Arctic regions // Influence of global climatic change on the health of the population of the Russian Arctic. In: Bogoyavlenskiy, D.D.: People of the Russian North: a demographic profile at the boundary of centuries. http://www.unrussia.ru/doc/Arctic-ru.pdf

The administration of the region pays special attention to reindeer husbandry as a traditional economic activity[11].

To maintain the process of reproduction of collective reindeer in the facilities of the region, the formation of optimal herd structures, and the increase of meat production the regional target programme "Development of northern reindeer husbandry in the Nenets autonomous region for the period 2007-2008" was adopted (Box 4). Within the framework of this programme financial support of reindeer husbandry was stipulated to the amount of 216 million roubles for various kinds of subsidies in the regional budget for 2007.

It is obvious that reindeer herders know how to cope with normal weather variations, even with periods of abnormal weather through several years. They adjust their usage pattern of the pastures to the conditions. Bad economic outcomes during a period of hard conditions are also considered to be normal. Climate change is not an issue that is discussed in the NAO: in the view of the NAO's inhabitants nothing has happened weather-wise that has not happened earlier. However, a bad winter with wet precipitation resulting in ice formation over large tundra areas has only occurred once.[12] Of course, herders realise that we are in a period of warmer weather. Winters start and rivers freeze later (Box 5).

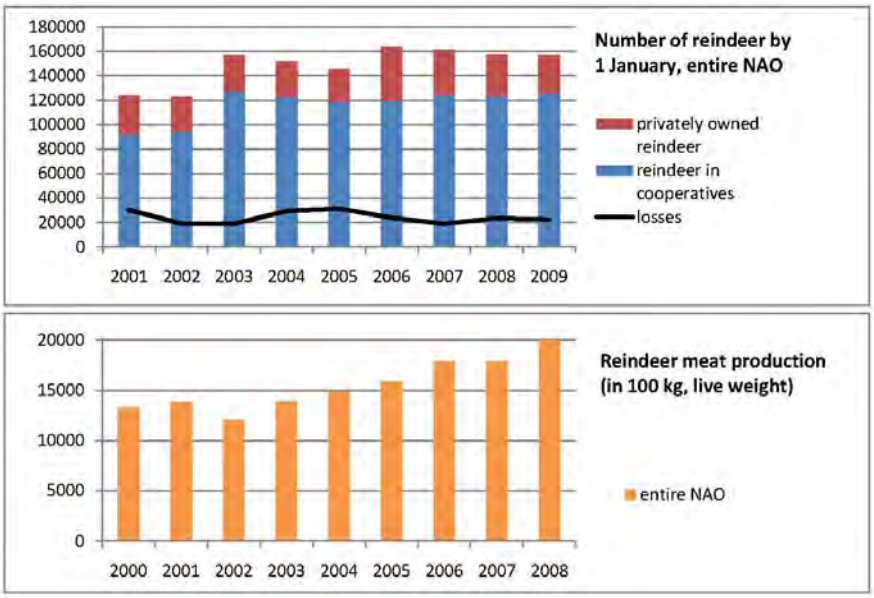


Figure 1-1: *Figures prepared by W. Dallmann (IPY project MODIL-NAO) from data of the former Agricultural Department, Nenets AO. Colours on the map define grazing areas assigned to the various herding cooperatives. See Section 2.4.6 for indicators for individual cooperatives.*

Industrial land use may to a large extent still leave room for reindeer husbandry, but this is based on current climatic conditions. Problems will possibly occur if periods of unfavourable conditions mount up. More unfavourable winter weather in the

Box 3:
Clan community of individual reindeer-herders Yamb-To
Source: www.nenets.ru

Yamb-To is a nomadic community comprising 30 families of reindeer herders, whose parents, migrating in traditional ways in the Bolshezemelskaya Tundra and to the Ural Mountains and Vorkuta, avoided collectivisation and nationalisation of their property. Until 1991 they lived independently of, and in isolation from, mainstream society, without medical or other kinds of support. The majority did not even have identification documents. Children did not go to school, men did not take part in compulsory military service. The families wandered all year round, obtaining necessary supplies in rural shops. With the introduction of a coupon-based distribution system for goods at the end of the 1980s, these people could not get supplies because they were not registered. They went to the regional administration for help. As a result, in 1992 the community Yamb-To became organized on a voluntary basis. Ilya Semyonovich Valey was elected head. The way of managing Yamb-To – independent, nomadic and deer-herding – has not changed. The community collects their members in the summer in the Amderma region for celebrating the Day of the Reindeer. In 1995 a group of experts of the Committee on Affairs of Northern Peoples carried out a medical survey of the reindeer herders and their families. Birth certificates, passports and other such documents were distributed. The reindeer herders were registered in the settlement Amderma. The NAO administration annually provides a support of essential materials and food products, and pays social benefits to reindeer herders and camp workers. Since 1997 there has been a nomadic summer school* for children and adults in the community.

** This school was closed a few ago (T. Tuisku, pers.com. 2009)*

[11] 5 Feb. 2008, source: Administration of Nenets AO, http://www.adm-nao.ru/?show=news&id=1400

[12] 1997, Z.V. Ravna, pers. comm. 2008, and T. Tuisku, pers. com., 2009

future will make it necessary to change the pasture usage patterns. Problems will arise if additional pastures needed to get reindeer herders through the difficult periods are not available because of oil development.

Once pastures are destroyed or polluted, they cannot be used as spare pastures for periods of unfavourable weather conditions. This seems to be one of the most sensitive factors. And there will be limits to how much subsidies the state will put into reindeer husbandry, if doing so does not seem adequate anymore. Then we could face a sudden decline of reindeer husbandry – at least in the areas of heaviest oil development in the Bolshezemelskaya Tundra.

Seen from the perspective of official numbers, economic vulnerability towards oil development may seem to be compensated for the time being. Specific local knowledge of the tundra among reindeer herders allows them to make optimal use of the pastures available to them. Of course, there are limits to this. And just the fact of working and living in – and being dependent on – an area with increasing pollution and degradation triggers feelings of insecurity and hopelessness.

Box 4: Regional target programme "Development of northern reindeer husbandry in the Nenets autonomous region for the period 2007-2008"
Source: http://www.adm-nao.ru/?show=news&id=1400

- grants for the compensation of losses in animal production (123.1781 million RUR);
- subsidies for the delivery of seeds for the cultivation of forage crops in northern areas of the country (20,200 RUR, of which 8100 RUR from the regional budget, and 12,100 RUR from the federal budget);
- grants for the compensation of losses in vegetable production due to the closure of farm land (1.5643 million RUR);
- grants for purchase of combined forages and fodder grain at a rate of 70% of the procurement price (7.612 million RUR);
- grants for reimbursement of 80% of transport costs on delivery of animal products and fish in Naryan-Mar (17.1314 million RUR);
- grants for reimbursement of 50% of the cost of mineral fertilisers at delivery (735,000 RUR);
- subsidies for reimbursement of costs connected with the conclusion of contracts for scientific research (303,000 RUR);
- subsidies for interest rates of loans received from Russian creditors for the development of animal production and commercial fishery (1.831 million RUR, of which the amount of 1.411 million RUR from the regional budget and 420,000 RUR from the federal budget);
- subsidies for interest rates of loans received from Russian creditors, and loans received from agricultural credit consumer cooperative societies, for the development of small businesses in agriculture (167,500 RUR, of which 157,500 RUR from the federal budget and 10,000 RUR from the regional budget);
- grants for the support of northern reindeer husbandry (62.6492 million RUR, of which 31.3188 million RUR from the federal budget and 31.3304 million RUR from the regional budget);
- grants for the support of animal husbandry (1.2307 million RUR, of which 315,700 RUR from the regional budget and 915,000 RUR from the federal budget).

Box 5: There is no winter at all
Irina Khanzerova, source: Nyaryana Vynder, 27 October 2007, No163 (19137)
http://www.nvinder.ru/archive/2007/oct/27/12.shtml

The village of Nes traditionally was famous for its ancestrial lines, originating with descendants of the first villagers, who founded the settlements of the Kanin-Timan area: from formerly prosperous Torna, Gorb and Mgla to currently thriving Chizha, Shoyna and Pesha.

Nes is a village of success. In time for the winter high-voltage lines have been repaired, which means the village has overcome urgent problems concerning the delivery of electric power to Nes's houses. A platform for the installation of a new diesel generator has been prepared; the generator should arrive by one of the last boats of the season. A major overhaul of the hospital is being finished, and a committee has started to assess the work done. What's more, Nes is a village of new buildings. At present 12 (!) apartment houses are being completed.

According to the latest information received yesterday from Kanin, the warm weather has stabilised. There is absolutely no snow. This creates a number of problems for the reindeer herders of the SPK Kanin. They are now at full speed moving to the winter pastures in the Mezen area, but unfrozen tundra rivers do not allow the herds to move in the right direction. Now closest to Nes is the 3rd brigade, while the 9th and 10th are still not far from Chizha, and the other herds have not moved much further. The present mild winter temperatures will probably cause some headaches to the reindeer herders of Kanin, as the weather forecasters say we have to wait still longer for frosty days.

Nenets artists at the song competition Sava Së in Naryan-Mar, at the occation of Yasavey's 20th anniversary, Dec. 2009; at the microphone: Yasavey's president Vladislav Peskov - Photo: WKD

Above and below: Nenets musicians at the song competition Sava Së, Naryan-Mar, December 2009 Photos: WKD

Nenets dancers at the 30th aniversary of the folk group Maimbava in the village of Nelmin Nos, Malozemelskaya Tundra, March 2009 - Photo: WKD

Nenets women in their national costumes, village of Oma, Kaninskaya Tundra - Photos: Yasavey

PLATE 2: Nenets folklore

Photos: Yasavey

PLATE 3: Nenets reindeer husbandry (Kanin and Timan areas)

Nenets nomad camps in September 2002, belonging to SPK koopkhoz Erv, Varandey area. Sledges are used for transportation also in summer. Corrals (lowermost picture) are to gather reindeer for ear-marking, selecting and slaughtering - Photos: Yasavey

PLATE 4: Nenets reindeer husbandry (Varandey area)

Nenets nomad camp at Syder, Chernaya area, SPK koopkhoz Erv, May 2008 - Photos: ZVR

PLATE 5: Nenets reindeer husbandry (Syder, Chernaya area)

1.2.3. Relevant laws and regulations

This sections summarises the analysis by E. Khmeleva and T. Grechushkina, "Legislative requirements for the oil and gas industry and protection of the rights of indigenous numerically small peoples of the Nenets Autonomous Okrug", conducted in the frame of the persent project. The complete analysis is provided in the Appendix (A2).

Editors note: The term "indigenous peoples" is used for fluent reading in this chapter, meaning the Russian term "numerically small indigenous peoples of the North, Siberia and Far East of the Russian Federation".

Some of the information in this chapter is repeated later on; it is included here to keep this overview of the legislation complete.

1.2.3.1. Special protection of indigenous peoples rights

A number of indigenous peoples' rights defined by legislation have a general declarative character and are lacking delineations of the specific duties of the resource extractors to preserve these rights.[13]

According to Clause 69 of the Constitution, the Russian Federation "guarantees the rights of numerically small indigenous peoples according to the conventional principles and norms of international law and the international contracts of the Russian Federation". According to item "m" of Clause 72, the protection of the primordial inhabitancy and traditional ways of life of the NSIPN, is a joint responsibility of the Russian Federation and its administrative subunits.

Three federal laws are completely devoted to the rights of indigenous peoples: "On guarantees of the rights of numerically small indigenous peoples of the Russian Federation" (1999), "On the general principles of organising communities of numerically small indigenous peoples of the North, Siberia and the Far East of the Russian Federation" (2000) and "On Territories of Traditional Nature Use of numerically small indigenous people of the North, Siberia and the Far East of the Russian Federation" (2001).

At the level of the NAO, these issues are regulated by both federal and NAO legislation, for example, the NAO law "On regulation of land issues on the territory of the Nenets Autonomous Okrug" (2005), the NAO law "On subsoil resources" (2003), and the NAO law "On reindeer husbandry in the Nenets Autonomous Okrug" (2002).

According to the latter, persons working in reindeer husbandry, their authorised representatives and representatives of the social organisation 'Association of Nenets People Yasavey' have the right to request ecological and ethnological impact assessments of activities potentially infringing the interests of reindeer husbandry and to participate in carrying out such impact assessments".

1.2.3.2. Territories of Traditional Nature Use

One of the means to protect the traditional way of life and primordial inhabitancy of indigenous peoples is the establishment of Territories of Traditional Nature Use (TTNUs). Their definition, as well as the procedures for establishing and managing them, are regulated by the federal law "On Territories of Traditional Nature Use of indigenous numerically small peoples of the North, Siberia and the Far East of the Russian Federation" (2001).

As TTNUs are specially protected areas, a special legal regime is established within their boundaries. This includes a limitation on economic activities that conflict with the purpose of the establishment of an TTNU in the first place. The federal legislation does not contain an obvious interdiction against carrying out activities related to the exploration for, or the extraction and transportation of, hydrocarbon resources, but the federal law "On subsoil resources" states that "the use of subsoil resources in specially protected territories should take place in accordance with the status of these territories". Thus, in cases where the regulations for a TTNU prohibit hydrocarbon-related activities within their borders, subsoil resources cannot be allocated for these purposes.

A number of TTNUs are currently established within the NAO through regulations approved by the NAO Administration in 2002. Among them are the regional-level TTNUs "im. Vyucheyskiy", "Erv", "Rassvet Severa", "Kolguev", "Druzhba narodov", "Krasnyy Oktyabr", "Voskhod", "Put Ilicha". All of these TTNUs have been created with the purposes of protecting the rights and interests of the NSIPN in the NAO, including the preservation of their culture, traditional way of life and traditional economic activities. But

[13] At the same time, applying positions of Clauses 2 and 18 of the Constitution of the Russian Federations defining the validity of human rights, it is probably possible to achieve enforcement and observance of indigenous peoples' rights by means of the Office of Public Prosecutor and through legal proceedings.

none of the relevant regulations precisely delineate what is forbidden within the borders of the TTNU.

Despite this, all the relevant laws do limit the possibilities of conducting hydrocarbon-related activity within the limits of TTNUs, in line with specially protected natural areas. It is therefore necessary to use TTNUs as the mechanism for the preservation of traditional lands for the use of the NSIPN in the NAO.

1.2.3.3. Legislation regarding mineral exploitation

Issues concerning the exploitation of subsoil resources, including extracting hydrocarbon resources, are regulated by the federal law "On subsoil resources". Besides this, more specific issues are in part regulated by the federal Land, Forest and Water Codes, as well as by the federal laws "On protection of the environment", "On ecological impact assessment" and a number of subordinate acts.

Subsoil resources within the borders of the Russian Federation, including the subsurface space and its mineral, energy and other resources, are subject to state ownership. Private or municipal ownership of subsoil resources is not approved.

There are also laws and subordinate acts at the regional level regulating the exploitation of subsoil resources, including the extraction of hydrocarbon resources. The NAO law "On subsoil resources" was passed in 2003; it was revised in 2005 and 2006.

The federal law "On subsoil resources" defines as the primary goals of state regulation of the exploitation of subsoil resources the continuous reproduction of the mineral and raw material base, its rational use and the protection of subsoil resources in the interests of present and the future generations of the people of the federation.

Subsoil resources can simultaneously be allocated for geological studies and mineral extractions. Extraction can then be undertaken during or after the geological investigations.

The right to use subsoil resources is granted on the following preconditions:

- approval of a commission, created by the federal management bodies for state subsoil resources and including representatives of the relevant administrative subunit of the federation;
- the decision of the competition or auction commission granting use rights to subsoil resource sites for the purpose of exploring for and extracting minerals or, under a combined license, for the purposes of geological studies and the investigation and extraction of minerals, barring sites in Russian waters and on the continental shelf;
- the coming into force of a consortium agreement on division of production, concluded in accordance with the federal law "On consortium agreements on division of production".

Permission to use subsoil resources is specially sanctioned by the state by a license containing a form with the state emblem of the Russian Federation, as well as text, graphics and appendices. The appendices are an integral component, defining the basic conditions for using subsoil resources.

Between representatives of the government bodies and the subsoil resource user a contract can be signed (although this is not obligatory), with a description of the conditions applying to the use of such sites and the obligations of the parties in this connection.

The granting of the license is carried out at the consent of the land owner, the land user, or the tenant.

Allocating subsoil resource sites proceeds as follows:

- Preliminary concession boundaries are defined.
- Announcement of an auction, or competition, which allocates sites for development, is published by a special authorised body in a federal, republican or regional press organ, an independent press organ, and a local press organ, not later than 3 months – for large objects not later than 6 months – prior to the date of the event.
- The enterprises submit applications.
- In the case of an auction, the applications undergo a preliminary examination (elimination). For competitions a preliminary expert examination is not conducted.
- After the application form for participation in a competition is accepted, the geological information package for the site of interest is given to the applying enterprise.
- On the basis of the geological information, the applying enterprise calculates the basic technical and economic parameters of the planned development.
- The auction or competition is carried out by a commission of experts, which renders a decision.
- The authorities render their decision on the basis of the decision of the expert commission of the auction or competition.
- A preliminary agreement is drafted. This outlines the recultivation and restoration of the tract of land in question. The land is allocated in accordance with the federal Land Code.
- A state ecological impact assessment of the license's supporting documents is carried out.

- The winner of the competition or auction is granted the license.
- Registration of the license by federal or regional geological resource management bodies (within a month from its receipt). The license comes into force after its registration.
- Authorities are obliged to publish publicly lists of all enterprises participating in competitions or auctions, a list of the enterprises which have received licenses, and the conditions on which licenses have been given. The information should be published not later than 30 days from the date of the decision on the competition or auction.
- The concession boundaries are specified.
- The resource exploitation project is outlined, other project documentation is developed.
- The project is carried out.

These procedures of resource exploitation in the NAO are regulated by the law, "On subsoil resources" (2003). According to this law, "the major task of the law is the establishment of relationships directed towards the rational exploitation of subsoil resources, nature protection norms and environmental safety, a combination of the exploitation of subsoil resources and the preservation of the traditional way of life of the indigenous peoples of the North".

The law regulates the procedure of allocating subsoil resource sites for exploitation, the exploitation itself, and it includes the following special duties of the license owner (subsoil resource user):

- to fulfill the conditions set out by the license and the license agreement (contract) with respect to production and other agreements (contracts) concluded on their basis, including agreements with Northern indigenous peoples;
- to respect the rights of indigenous people of the North with regard to the protection of their primordial inhabitancy, traditional way of life and occupations.

Thus, the law demands, among other obligations, the observance of the interests of indigenous peoples during the exploitation of resources.

The legislation of the Russian Federation and the NAO requires that the allotment of land for purposes not connected with conducting a traditional way of life are coordinated with the indigenous peoples. Legislation also delineates the necessary conditions concerning compensations and indemnifications for the resulting losses to the indigenous peoples.

1.2.3.4. Environmental assessments

The basic mechanism of environmental protection which was used in Russia until 1 January 2007 was the State Environmental Assessment. Practically of all kinds of economic activities were subject to the State Environmental Assessment (SEA).

Since 1 January 2007, after a modification of the federal law "On modification of the Town-planning Code of the Russian Federation and separate acts of the Russian Federation" (2006), the role of the SEA is considerably reduced.

Before the law came into force, environmental assessment included "an establishment of the conformity of the planned economic and other activity with environmental requirements and a definition of the admissibility of the realisation of the object of the environmental assessment, with an outlook on the prevention of possible adverse influences of this activity on the surrounding environment and the social, economic and other consequences of the realisation of the object of the environmental assessment". (*Editor's note:* In other words, environmental assessment included consideration of whether the proposed development would have negative social and economic impacts.)

From 1 January 2007 this was restated as "an establishment of the conformity of the documents and/or the documentation proving that the planned object of the environmental assessment of economic and other activity, with the environmental requirements established by technical regulations and the legislation in the field of environmental protection, with an outlook on the prevention of negative influences of such activity on the environment".

When comparing these definitions some major main differences can be seen. First, the subject of the assessment since 1 January 2007 is not the poposed economic activity, but the documents and the documentation. Second, all social, economic and other consequences of the poposed economic activity disappear from the purposes of the assessment. Third, and this is most important, as of 1 January 2007, it is a requirement that technical regulations coincide with the environmental requirements.

In the Town-planning code of the Russian Federation, the legislator defines the objective of State Assessment of Project Documentation (SAPD): an assessment of whether the project documentation conforms with the requirements of the technical regulations, including sanitary, epidemiological and environmental requirements, requirements of cultural heritage protection, requirements of fire, industrial, nuclear, radiation and other safety issues.

Technical regulations in the field of environmental protection are absent. It is thus quite possible that the environmental assessment will not be carried out at all.

1.2.3.5. Ethnological assessments

The concept of ethnological assessment is introduced by the federal law "On guarantees of the rights of numerically small indigenous peoples of the Russian Federation" (1999). According to this law, "ethnological assessment is a scientific investigation of the influence of changes of the primordial inhabitancy of numerically small indigenous people and the welfare … of an ethnic group".

Indigenous peoples have the right "to participate in the work on environmental and ethnological assessments during the process of developing federal and regional programmes for natural resources development and protection of the environment in places of traditional nature use and economic activities of indigenous peoples".

Except for these positions, the Russian legislation contains no references to regulation of the process of ethnological assessments and their status.

Despite this, experiences of carrying out ethnological assessments of oil and gas projects exist from the Yamal-Nenets Autonomous Okrug and Sakhalin Oblast.

The NAO law "On reindeer husbandry in the Nenets Autonomous Okrug" (2002) states that "persons engaged in reindeer husbandry, their authorised representatives and representatives of the … Association of Nenets People 'Yasavey' have the right to put forward proposals on carrying out environmental and ethnological assessments of economic and other activity infringing the interests of reindeer husbandry, and to participate in carrying out these assessments".

In spite of the fact that regulations for ethnological assessments are not clear, the indigenous peoples of the NAO and their authorised representatives can demand that such assessments are carried out, when planned oil development projects infringe their interests.

1.2.3.6. Opportunities for participation of indigenous peoples in making decisions

Indigenouos peoples' participation in decision-making regarding the carrying out of hydrocarbon projects is possible at the following stages:

1) At the stage of allocation of the land by referenda, meetings and coordination with representatives of indigenous peoples

2) At the stage of the Estimation of Environmental Impact (EEI)

As the substantiation of a license is a matter of a SEA, and as carrying out an EEI is obligatory according to the current legislation, participation of the public should take place as stated in the "Position on estimation of environmental impact of planned economic and other activity in the Russian Federation", approved by the State Environmental Authority (*Goskomekologiya*) (2000). The EEI is is a unique mechanism of public participation in environmentally significant decisions. It includes:

- the duty to inform the public at all stages of the EEI and to consider their proposals, notes and comments;
- public discussions of planned activity, including public hearings;
- an opportunity to present notes, proposals and comments regarding the proposed development at all stages of the public discussion.

3) At the stage of the Public Environmental Assessment (PEA)

The process of carrying out a PEA is regulated by the federal law "On environmental assessment". Some of the main provisions of these clauses are:

- A Public Environmental Assessment (PEA) is organised and carried out under the initiative of citizens and public organisations (associations), and also under the initiative of local self-government bodies by public organisations (associations), the charters of which include work on the protection of the environment, including the organisation and carrying out of environmental assessments.
- Public organisations (associations) which are carrying out a PEA have the right to receive documentation regarding the proposal from the applicant, in the same form as given to the SEA, to participate as observers in sessions of expert commissions of the SEA and to participate in concluding discussions and public discussions under the PEA carried out by them.
- The conclusion of PEA becomes valid after it has been stated by the federal executive authority in the field of environmental assessment or by a government institution of an administrative subunit of the Russian Federation.

4) At the stage of the State Environmental Assessment (SEA)

According to the Federal Law "On environmental assessment" citizens and public organisations (associations) have the right to propose that PEAs of economic and other activities that infringe on the environmental interests of the inhabitants of a given territory be carried out, etc. Due to the replacement of 2007 of the SEA by the SAPD (see above: section of Environmental assessments) the role of the public at this stage has become unclear.

1.2.3.7. Environmental protection

Preservation of the environment is a requirement for hydrocarbon projects. As the traditional way of life of the indigenous peoples is closely connected with the condition of the environment, the right to a favourable environment is stated in Clause 42 of the federal Constitution.

The federal law "On preservation of the environment" (2002) specifies objects of special protection as well as sites included in the World Heritage List, state nature reserves, national parks, and areas of primordial inhabitancy and traditional nature use by the indigenous peoples.

According to the same law, locating, designing, constructing, reconstructing, commissioning, operation, preservation and liquidation of buildings, structures, constructions and other objects rendering direct or indirect negative influence on the environment are to be carried out according to requirements of environmental protection. Actions should be taken to secure environmental protection and restoration, rational use and reproduction of natural resources, and maintenance of environmental safety.. Breaching the requirements of environmental protection entails a stop by court order of the activity in question.

Industrial waste, including radioactive waste, must be collected, neutralised, transported, stored and/or disposed of using environmentally sound methods as defined by federal legislation. These actions are prohibited: dumping industrial waste, including radioactive waste, in surface or underground water reservoirs, in water catchment areas, in the subsoil and on the ground; deposition of radioactive or other dangerous waste near cities or rural settlements, in forests and parks, resorts, health-improvement or recreational zones, on animal migration routes, close to spawning areas and elsewhere where the waste constitutes a danger to the environment, ecosystem or human health; burying radioactive or other dangerous waste in water catchment areas for underground water reservoirs used as sources of water supply or for hydrotherapeutic purposes, or for the extraction of valuable subsoil resources.

The decision of the State Mining Directorate (*Gosgortekhnadzor*) "On the statement of 'Rules of protection of subsoil resources'" (2003) states:

During the exploitation of subsoil resources, safety of life and health of the population, protection of buildings and constructions, air, ground, forests, water, fauna and other elements of the environment shall be ensured. Land destroyed through mining shall, after the cessation of the work, be brought into a suitable condition for further use. When work results in the destruction of the soil cover, the fertile ground layer shall be removed, stored and used on recultivated or unproductive land. During the extraction of mineral deposits, actions to prevent water and wind erosion, salting, bogging or other sorts of soil degradation shall be carried out. During the exploitation of surface and ground water, the water needs of the population for drinking and household uses,and the protection of water from exhaustion or pollution, including from sewage, shall have priority.[14]

Users of subsoil resources or other legal and physical persons involved in the exploitation of subsoil resources must have special qualification and experience, confirmed by a state license (certificate, diploma) to carry out such activities: geological prospecting, search, investigation, various methods of mineral extraction, construction and operation of underground structures, and other relevant activities.

Two federal orders "On urgent measures for prevention and removal of spills of oil and oil products" (2000), and "On the order of the organisation of actions under the prevention and removal of spills of oil and oil products in the territory of the Russian Federation" (2002) establish duties for enterprises that extract and transport oil regarding the preparation and performance of emergency plans. In the context of current developments in oil extraction in the NAO it is urgent that the necessary regulations delineating the order's implementation are approved so that these orders can go into effect.

In the NAO, the "Regulations of the organisation of actions under the prevention and removal of oil spills and oil products in the territory of Nenets Autonomous Okrug" (2002) also applies. This also describes the duties of users of subsoil resources in this sphere.

Further regulations are found in the Water Code and Forest Code of the Russian Federation.

[14] Decision of the State Mining Directorate (Gosgortekhnadzor) "On the statement of 'Rules of protection of subsoil resources'" (2003)

1.2.3.8. Compensation of damage

According to the Federal Law **"**On guarantees of the rights of numerically small indigenous peoples of the Russian Federation**"** (1999) indigenous peoples have the right to compensation for damage caused to their living space by economic activities of organisations of all forms of ownership or physical persons. A similar norm is contained in the NAO law "On regulation of land issues on the territory of the Nenets Autonomous Okrug" (2005).

Thus, both federal and regional legislation state the right of the NSIPN in the NAO to receive compensation for the damage rendered by hydrocarbon exploitation to their traditional nature use and a traditional way of life. The procedure of payment and calculations of the sum of the damage which is subject to compensation is defined under the agreement between the parties.

The legislation of the NAO demands agreements between users of subsoil resources and representatives of NSIPN at a stage of development of the project. The advantage of this requirement is the fact that the law guarantees a compensation of damage to the NSIPN; the disadvantage is the fact that the real impact on the Territories of Traditional Nature Use and the traditional way of life can be much larger than paid off under the agreement.

If the parties disagree about the size of indemnifications for damage that has occurred, they have the right to bring the case to court.

The federal law "On preservation of the environment", which states the duty of full indemnification for damage to the environment, as well as regulations regarding the payment, can be used to calculate compensation for damages that have occurred. Calculating the size of the environmental damage caused by breaching environmental protection legislation is grounded in the costs of restoring and recultivating the degraded environment and carrying out whatever reconstruction work as may be required**.**

At the federal level, a number of methods to estimate damage are approved. At the NAO level, there is the regulation "Rates for calculating the size of compensation for damage caused by legal and physical persons through illegal hunting, gathering, preparation or destruction of objects belonging to the Red List of endangered species of the NAO, as well as the destruction and degradation of their living space" (2005).

Unfortunately, to our knowledge, these calculation methods do not match the real size of the caused damage and losses, nor the actual costs of restoration of the natural condition of the environment.

1.2.4. Traditional land use management in the NAO

The Association of Nenets People Yasavey was established in 1989. It takes legislative initiatives in the area and sends its representatives to the Committee for Land Allocation and Allotment of Recultivated Transpolar Lands. The Association also works in the NAO Committee for Fisheries and in the Committee for the Affairs of Nenets and Other Numerically Small Peoples of the North under the NAO's Assembly of Deputies.

Box 6:
Agricultural production cooperatives (SPKs) having established Territories of Traditional Nature Use (TTNUs) *see maps O-3 and O-4*

SPK koopkhoz Erv	SPK Krasnyy Oktyabr
SPK im. Vyucheyskogo	SPK Voskhod
SPK Druzhba Narodov	SPK Kolguev
SPK Rassvet Severa	SPK Put Ilicha

In 2001, the NAO issued the Enactment for the Establishment of Northern Indigenous People's Territories for Traditional Nature Use in the NAO. In 2002, this Enactment was succeeded by the Resolution for the Establishment of Specific Territories for Traditional Nature Use. Today, there are 22 agricultural production cooperatives (SPK, see Box 9), of which eight incorporate Territories of Traditional Nature Use (TTNU) established at a regional level. These lie within SPK lands already allocated during Soviet times (Box 6).

Unfortunately, the regulations for such territories lack provisions on how to manage them. However, they include provisions stating that the natural resources within such territories shall be managed and their monitoring carried out by Northern indigenous communities and organisations duly authorised to do so according to current legislation. This includes monitoring compliance with the main requirements of environmental and land management legislation applicable to the land use for economic purposes.

Box 7:
List of Clan Communities (*obshchinas*) **in the Nenets Autonomous Okrug**

Clan community	Location
Community of indiv. reindeer herders Yamb To	Amderma, Amderminskiy Village Council
Obshchina Ilebts	Nelmin-Nos, Malozemelskiy Village Council
Obshchina Neruta	Nelmin-Nos, Malozemelskiy Village Council
Obshchina Tabseda	Nelmin-Nos, Malozemelskiy Village Council
Obshchina Opseda	Nelmin-Nos, Malozemelskiy Village Council
Obshchina Vynder	Nelmin-Nos, Malozemelskiy Village Council
Obshchina Sava Ne	Iskateley
Obshchina Nerutsya (Varandey)	Naryan-Mar
Obshchina Salya Ter	Nes, Kaninskiy Village Council
Obshchina Syatorey Yakha	Indiga, Timanskiy Village Council
Farm Enterprise of V.F. Apitsyn	Indiga, Timanskiy Village Council
Farm Enterprise Senga	Nelmin-Nos, Malozemelskiy Village Council
Obshchina Vark	Nelmin-Nos, Malozemelskiy Village Council

Furthermore, the natural resources within SPK lands and TTNUs are traditionally used without any special land acquisition by clan communities established under the Federal Law "On General Principals of Organisation of Communities of Indigenous Peoples of the North, Siberia and Far East of the Russian Federation" (Box 7).

1.2.4.1. Legislation for indigenous peoples of the Nenets Autonomous Okrug

The Statute of the Nenets Autonomous Okrug of 11 September 1995[15] provides for indigenous peoples' participation in the exercising of power at the regional and local levels, by way of representation in public authorities, Okrug administration and other directly democratic fora (Article 15).

The issues of social and economic development of the Nenets are settled by government authorities and Okrug administration with participation of Yasavey (Article 16). For the purpose of conservation and development of nature management by indigenous people, Territories of Traditional Nature Use (TTNU) are established in the Okrug (Article 17). Allocation or withdrawal of land or other natural resources, which are the Okrug's property, in the territory of local indigenous people, for purposes other than traditional economic activities shall be agreed upon with local self-government bodies within the relevant territory or determined through local referendum (Article 57).

In view of the fact that the legislation fails to delineate when an agreement or a local referendum should be carried out, it is evident that there are two options. It would seem logial that whenever local people show interest in settling issues pertaining to the allocation or withdrawal of land or other natural resources, a referendum may be arranged and held. Apart from that, Article 13 of the federal law "On Protection of Environment"[16] also provides for the decision on locating facilities that are potentially dangerous for the environment to be made with consideration of public opinion or referendum results. A referendum is the highest form of people's participation in local self-government. In accordance with Article 22, §7, of the Federal Law "On Common Principles for Organisation of Local Self-Government in the Russian Federation"[17], any decision taken by local referendum is subject to compulsory application within the municipality and does not need to be approved by any other public authorities, officials or local self-government bodies.

The NAO law "On Reindeer husbandry in the Nenets Autonomous Okrug"[18] contains a number of important provisions regarding the participation of indigenous peolpe in decision-making. Thus, Article 15 provides for development and adoption by Okrug authorities in cooperation with Yasavey of purpose-oriented programmes aimed at the preservation and further development of traditional culture and the sustainable use of renewable natural resources. At the same time, reindeer herders, their representatives and representatives of Yasavey may propose that environmental and ethnological assessment to be carried out to assess activities affecting reindeer husbandry; they may also participate in the actual process of such assessments (Article 17). Participation in such assessments enables indigenous people to influence expert opinion. The list of types of facilities subject to State Environmental Assessment at federal and regional levels is defined by Articles 11

[15] See Naryana-Vynder, 1995, Issue 145-146

[16] N 7-F3 of 10 January 2002; see Collected Legislation of the Russian Federation, 2002, No. 2, Article 133

[17] N 131-F3 of 6 October 2003

[18] Of 10 July 2000; see Naryana-Vynder, 2000, No. 114

and 12 of the federal law "On Enviromental Assessments" [19]. Recent legislative changes has in effect shortened this list. However, it still provides for the possibility to assess the environmental impact of any scheduled economic activity that is potentially harmful to the environment on the basis of the Provision for Assessing the Effect of Projected Economic or Other Activities on the Environment in the Russian Federation[20].

The NAO law "On Subsoil Resources"[21] (Article 35) and the law "On the Procedure for the Allocation and Use of Subsoil Resources for the Purposes of Geological Research and Development of Common, Widespread Mineral Deposits"[22] (Article 15) oblige subsoil resource users to commit to the terms of agreements made with indigenous peoples and to exploit subsurface assets taking into account indigenous peoples' rights to the protection of their original environment, traditional life-style and animal husbandry.

When realising this legislative provision, a number of challenges arise with respect to agreements to be entered into by subsoil users and indigenous peoples (Box 8).

The NAO law "On Regulation of Land Issues on the Territory of the Nenets Autonomous Okrug"[23] provides for particular criteria to be observed when allocating land plots for the purpose of construction activities and the location of facilities relating to the use of subsoil resources.

These criteria are the following:

- Land plots are allocated only on the condition that submitted documentation contains the official consent by indigenous peoples or ethnic groups, including communities or their authorised representatives, stating their agreement to land allocation, or a document stating that handling of work – where geological-exploratory, geotechnical, geodesic, seismic or any other activities or surveys are to be carried out within indigenous peoples' territories – has been agreed with the indigenous peoples (Article 19).
- The same law provides for restrictions and prohibition on withdrawal and allocation of land for the purpose of the above mentioned activities, if such use should immediately endanger environmental safety, environmental conditions, preservation and development of the traditional life-style and the sustainable management of indigenous ethnic communities (Article 22). Where land plots are to be allocated within the areas of traditional residence and economic activities of indigenous people for purposes other than affecting their traditional activities, it is necessary to carry out a survey of the people's and communities' opinion.
- The administration of the Okrug or local self-government bodies shall take into account referenda or public meeting results when making decisions on preliminary approvals of sites for industrial purpose (Article 29)..

The same provisionis are stipulated in §3, Article 31 of the Land Code of the Russian Federation[24].

The above law "On Regulation of Land Issues on the Territory of the Nenets Autonomous Okrug" also defines the legal regime in the areas of traditional inhabitancy and economic activities of Northern indigenous peoples. Thus, in those cases provided by federal laws, laws of the Nenets Autonomous Okrug and statutory notes, Territories of Traditional Nature Use are established at regional (okrug) or federal level. These territories are given the status of specially protected natural areas (Article 28). The general rules for allocation and use of lands within the areas of traditional inhabitancy and acitivites of Northern indigenous peoples are provided in Article 29, which stipulates that the procedure for use and protection of such lands shall be differentiated on the basis of land category and permitted use according to land use planning; such a procedure should be compatible with indigenous peoples' customs and it should not obstruct their customary lifestyle. Within the NAO, in the areas of traditional inhabitancy and economic activities of Northern indigenous peoples, federal laws, laws of the Nenets Autonomous Okrug and statutory notes issued by local self-government bodies may establish a special regime for land use. Under a specially established legal regime, economic and recreational activities can be restricted on land plots within areas allocated for partial economic use.

1.2.4.2. Challenges for the environmental management and conservation of traditional land use areas

One of the challenges in efficient management of traditional nature use lands is the lack of up-to-date land use plans for all relevant farming units. This is because natural resources of agricultural production cooperatives' (SPKs') lands are also being used by private farming units and communities without any

[19] N 174-F3 of 23 November 1995; see Collected Legislation of the Russian Federation, 1995, No. 48, Article 4556
[20] N of 372 16 May 2000, approved by Resolution of RF State Committee for Ecology
[21] Of 2 June 2003; see Naryana-Vynder, 2003, No. 95–96
[22] Of 6 May 2005; see Naryana-Vynder, 2005, No. 77–78.
[23] Of 29 December 2005; see Naryana-Vynder, 2006, No. 7.
[24] N 136-F3 of 25 October 2001; see Collected Legislation of the Russian Federation, 2002, No. 44, p. 4147.

special land allocation. There is no reliable information about which particular land areas reindeer herders are utilising at any given time. This lack of information can lead to problems. For example, in the autumn a group of herders could migrate with their animals along a route without encountering any obstacles, but in the spring that same route could be obstructed by a pipeline, quarry or any other industrial facility placed there in the absence of knowledge of the reindeer herders' route. The project managers had agreed to the pipeline or quarry project with the legal owners of land (the SPK administration), but without consulting the actual reindeer herders.

Another challenge is the lack of proper management of Territories of Traditional Nature Use (TTNUs) and ambiguity regarding which government authority is responsible for managing these TTNUs. The NAO had to delegate some of their responsibilities to the Arkhangelsk Oblast in 2008. These responsibilities relate, in particular, to managing specially protected natural areas, under which TTNUs fall. On the other hand, the responsibilities to protect the natural resources and traditional lifestyle of the NAO's indigenous people remain within the NAO's terms of reference. It remains undetermined which of the authorities is in charge of TTNU management.

The **third challenge** concerns the fact that neither NAO nor federal legislation provide any requirements of compulsory assessment of industrial projects' impact on the traditional lands and lifestyle of the indigenous people. Although indigenous people and representatives of Yasavey have the right both to propose environmental and ethnological assessments of activities affecting reindeer husbandry, and even participate in the assessment process (see 1.4.2), the users of subsoil resources are not obliged to satisfy these requirements.

The **fourth challenge** is the absence of a common forum in the Okrug where representatives of government authorities, industrial companies and indigenous peoples could negotiate and make common decisions to achieve a balance of interests of all stakeholders.

Box 8:

Challenges in reindeer herders – oil company relations concerning mutual agreements

- Not all the companies make agreements with reindeer herders.
- Most agreements are short-term – one to two years. Only three companies have agreements with validity periods based on license agreements. There is only one trilateral agreement (which includes the Okrug administration).
- "Secret" agreements.
- Lack of a mechanism to investigation of reindeer herders' opinions on land allocation issues and oil companies' operations.

1.2.5. NAO legislation – a legal instrument for solving the problems of Northern indigenous peoples

Contribution by I.E. Ledkov, Deputy Chairman of NAO Assembly of Deputies and Vice President of Association of Nenets People Yasavey. Based on material from the scientific-technical conference "History, Culture, Traditions of Indigenous Population - Industrial Development of Northern Areas", 5-7 April 2006, Naryan-Mar.

It is stipulated by the Constitution of the Russian Federation (Article 72) that the issues of preserving the primordial living environment and traditional way of life of indigenous peoples fall under the joint jurisdiction of the Russian Federation and its administrative units. This means that for a certain law regarding indigenous peoples to be adopted by an administrative subunit of the Russian Federation it is first necessary that a federal law, or federal law provisions, is passed which would regulate the legal conditions.

In some cases, however, this can be bypassed. Legislative (representative) bodies may adopt their own laws that meet the provisions of federal legislation and can be in effect until the respective federal law is enacted. The adopted law then has to be brought in line with the enacted federal one. In addition, administrative subunits are granted full authority with regard to issues covered by the joint jurisdiction of the Russian Federation and RF administrative subunits. And the NAO Assembly of Deputies are using such

Box 9:
Russian legal definitions concerning indigenous peoples of the North, Siberia and Far East of the Russian Federation

prepared by Ekaterina Khmeleva, Legal Center "Rodnik"

SPK - Agricultural production cooperative / СПК - Сельскохозяйственный производственный кооператив

An SPK is an organisation established by agricultural producers and/or private farmers for joint agricultural production, processing and marketing, as well as other activities not prohibited by legislation. An SPK is based on voluntary membership, on joining up members' property shares and the personal labour of the members. (Article 1 and 3 of the Federal Law on Agricultural Cooperations, no. 193-FZ, 08.12.1995.)

Clan community / Родовая община

A form of self-organisation of indigenous people joined by blood relations, leading a traditional way of life and occupied with traditional modes of livelihood. (According to Art. 1 of the Federal Law of 20 July 2002 no. 104-FZ "On General Principals of Organisation of Communities of Indigenous Peoples of the North, Siberia and Far East of the Russian Federation".) Clan communities are non-profit organisations. (Article 2, part 3 of the Federal Law on Non-Profit Organisations, no. 7-FZ, 12 January 1996, with amendments.)

TTNU - Territories of Traditional Nature Use / ТТПП - Территории традиционного природопользования

Territories of Traditional Nature Use (Land Use) of Indigenous Peoples of the North, Siberia and Far East of the Russian Federation are specially protected areas established for pursuing traditional natural resource use and traditional ways of life by indigenous peoples of the North, Siberia and far East of the Russian Federation. (Article 1 of Federal Law of 7 May 2001 "On Territories of Traditional Nature Use of numerically small indigenous people of the North, Siberia and the Far East of the Russian Federation".)

Indigenous residence territory / Территории традиционного проживания коренных малочисленных народов

As defined by Russian legislation, these are the territories where ancestors of indigenous peoples had been living, pursuing a traditional lifestyle, and where indigenous peoples currently follow traditional lifestyles. Russian administrative subunits that contain territories of traditional residence of indigenous people are listed in the Standard List of Indigenous Peoples of the Russian Federation, adopted by the Decree of the Government of the Russian Federation, no. 255, 24 March 2000.

Traditional indigenous way of life / Традиционный образ жизни коренных малочисленных народов

A traditional way of life of indigenous people is the historically established way of life of indigenous peoples based on the traditional natural resource use practices of their ancestors and on their distinctive social organisation, culture, customs and religion. (Article 1 of Federal Law "On guarantees of the rights of numerically small indigenous peoples of the Russian Federation".)

Primordial environment / Исконная среда обитания

Primordial environment of indigenous peoples is a historically established area where indigenous peoples pursue their cultural and economic activities. This land has an influence on their self-identification and on their way of life. (Article 1 of Federal Law "On guarantees of the rights of numerically small indigenous peoples of the Russian Federation".)

authority as a legal tool in dealing with the challenges of Northern indigenous peoples.

The following groups of laws have a bearing on the problems of the Northern indigenous peoples:

- First, a block of laws and statutory acts relating to traditional management and way of life of indigenous peoples;
- Second, legislative and statutory acts relating to of indigenous peoples' capacity development and facilitating mechanisms for their self-determination;
- Third, acts addressing the social and economic challenges of indigenous peoples.

A number of challenges are being regulated by federal legislation, including the special acts listed in Section 1.2.3.1. It should be noted that the adoption of the federal law "On introduction into legislative acts of the Russian Federation of amendments and invalidation of certain legislative acts of the Russian Federation…", of 22 August 2004, entailed changes regarding the rights and interests of Northern indigenous peoples. The changes made to federal legislation required amendments to the regional legislation.

The first block of legislative and statutory acts relates to land, where land is regarded as the basis for maintaining traditional economic activity, for the existence of Northern indigenous peoples and as a basis for them to interact with subsurface resource users.

The NAO was among the first to prohibit the use of tracked vehicles in the tundra in summer. This timely act saved reindeer pastures from destruction while geological exploration was ongoing in the area.

The Okrug government passed the following regulations:

- "Regulations for Territories of Traditional Nature Use of indigenous peoples of the North in NAO" (2001);
- "Regulations on the regional inter-departmental commission for handling applications aiming at establishing Territories of Traditional Nature Use of regional level within NAO" (2001);
- "Regulations for establishing Territories of Traditional Nature Use in rural production cooperatives dealing in reindeer husbandry".

A number of the provisions of these regulations will have to be revised on account of the Federal law "On introduction into legislative acts of the Russian Federation of amendments and invalidation of certain legislative acts of the Russian Federation".

Land use is generally regulated by the Land Code of the Russian Federation (revised 2001).

It is particularly noteworthy that today reindeer pastures can only be leased to companies for compensation towards traditional land users, whereas according to the previous version of the Land Code indigenous peoples engaged in traditional economic sectors were entitled to use the land, i.e. reindeer pastures, for free and unconditional.

It is necessary to focus on the economic factors that will negatively impact indigenous peoples, especially during the current economic recession. Also important are the psychological factors which may negatively affect indigenous peoples, the most significant being a persistent state policy aimed at depriving indigenous peoples of their land rights. Peoples of the North have managed to conserve the natural environment of their land during millennia, and are now being treated by the state unfairly. Apart from being deprived of land, indigenous peoples are running the risk of losing the age-old ideology concerning land, including a careful and custodial attitude toward the land, a special attitude to tundra as the subsistence base and the basis for the well-being of the family and the larger indigenous society.

It must be noted that the state's first negative impact on reindeer herders and their families occurred a long time ago. The state's activities and policies – manifested by the state-owned geological companies - totally contradicted the ideology of tundra people. It was readily apparent to reindeer herders that one was allowed to damage tundra for the purpose of state tasks and bear no responsibility for the damage. It is now impossible to say how many tundra land plots were subjected to the so-called 'land reclamation' at the hands of the state. Today, tundra is exploited by private oil-producing companies and therefore the issues of preserving and careful use of indigenous peoples' territories of traditional land management are even more acute.

The Land Code of the Russian Federation (Article 31) provides for general rules regarding leasing land plots within the areas of traditional residence and economic activities of indigenous peoples and ethnic communities for purposes not relating to subsistence and other traditional economic activities. In late 2005, the NAO Assembly of Deputies adopted the law "On regulation of land relations within NAO". The Association of Nenets People Yasavey had proposed a number of provisions which were approved by the deputies and introduced into the law, among them the chapter "Legal status of land within the areas of traditional residence and economic activities of indigenous peoples of the North". The provisions stipulate that when allocating land plots for the purposes of subsurface users, it is necessary to survey the opinion of ethnic people, and governmental authorities must take these into consideration when making land allocation decisions. Reindeer herders must also be compensated for all losses. The NAO law provides for compensation agreements to be made between reindeer herders and subsurface users with respect to losses arising from damage, pollution or unauthorized use of land plots or violation of tundra people's rights. The parties must agree on the size of the compensation. This makes it unprofitable for subsurface users to damage reindeer pastures, and where contractual terms are violated the amount of losses will be paid directly to reindeer herders, not into the state treasury.

The Association of Nenets People Yasavey has focused its activity on exercising its right of legislative initiative. The association has proposed to the Assembly of Deputies two draft laws: “On special legal status of land use within the areas of traditional residence and economic activities of indigenous peoples of the North in the NAO” and “On ethnological assessments”. The first draft had to be withdrawn due to the enactment of the above mentioned area’s law (“On regulation of land relations within NAO”), and there are obstacles for adopting the latter. The obstacles consist, firstly, in the fact that presently there is no similar federal law adopted and, secondly, ethnological assessments have to be carried out jointly with environmental assessments. The procedures of environmental assessments fall within the jurisdiction of federal governmental authorities, and therefore federal administrative subunits, i.e. the Okrug’s Assembly of Deputies, are not authorized to adopt such a law.

Changes in the federal legislation on natural resources and land that resulted in the regions having less authority in regulating land relations, licensing and controlling subsurface management call for new approaches with regard to the state protection of the rights and interests of indigenous small ethnic minorities of the North.

In our area, the main economic industry for the Nenets is reindeer husbandry. In 2002, the Assembly of Deputies adopted the law ”On reindeer husbandry in the NAO”. The law was lobbied by P.A. Yavtysyy – the then Vice President of the Association of Nenets People Yasavey, and a famous Nenets poet and writer. It provides for the legal, economic, environmental and and social basis of reindeer husbandry as one of traditional economic activities of Northern indigenous peoples. The law also aims at facilitating their effective economic activities and the maintenance of their traditional way of life.


Naryan-Mar at the Pechora river - Photo: ZVR

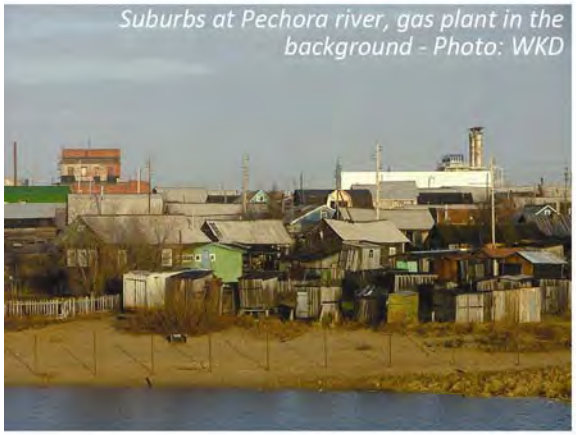

Main road from airport and church - Photo: WKD


Post office - Photo: WKD


Back yard scene - Photo: WKD


Detached family housing - Photo: WKD


Appartment blocks - Photo: WKD


Suburbs at Pechora river, gas plant in the background - Photo: WKD


Harbour facilities - Photo: WKD

PLATE 6: Naryan-Mar, capital of Nenets Autonomous Okrug


Orthodox church - Photo: WKD


Lukoil Sever's main office - Photo: WKD


Street life, city centre - Photo: WKD


Street life, city centre - Photo: BRK


Oil companies build modern housing - Photo: WKD


Oil money pais for playing grounds - Photo: WKD


Modern detached family housing - Photo: WKD

"I love Naryan-Mar" - Photo: WKD

PLATE 7: Naryan-Mar, capital of Nenets Autonomous Okrug


An-2 airplanes connect many villages. Take-off at Karatayka - Photo: Yasavey


Crowd waiting to board An-2 airliner at Indiga - Photo: Yasavey


Mi-8 helicopters serve places without airfields - Photo: Yasavey

Waiting for folks and supplies at Bugrino, Kolguev Island - Photo: Yasavey


Rivers serve as waterways in summer, village of Indiga - Photo: Yasavey

Post office, village of Indiga - Photo: Yasavey


The oil age brought modern telecommunication, village of Kharuta - Photo: Yasavey


Many villages are connected by telecommunication, village of Indiga - Photo: Yasavey

PLATE 8: Infrastructure

1.3. Oil-and-gas development in relation to indigenous peoples in the NAO

1.3.1. The development of hydrocarbon installations in the NAO

After prospecting for hydrocarbons beginning in the 1960s, the real oil boom in the area started in the 1990s, in the Bolshezemelskaya Tundra and, to a minor extent, on Kolguev Island. Production started in the Ardalinskoe (1994) and Kharyaga (1999) oil fields in the southern Bolshezemelskaya Tundra, and in the area around Varandey at the shore of the Pechora Sea. Both Kharyaga and Varandey have since developed to become major industrial facilities, where pipelines from many oil fields join together (Maps B-1, B-3).

In addition, Naryan-Mar and depending villages (Krasnoe, Telviska) are supplied with gas for the power station as well as for heating and cooking from the Vasilkovskoe gas field at the Pechora River mouth by a 63 km long pipeline constructed in 1978.

By 2002, 34.5 million tonnes of oil had been extracted in the NAO. The annual production was 7.3 million tonnes in 2006 and increased to 14.2 million tonnes in 2008. There are plans to increase the rate to 23.3 million tonnes in 2010[25].

In Kharyaga (or Kharyaginskoe) oil is sent southward from many oil fields (companies Lukoil-Komi, Total Exploration Development Russia, Pechoraneft, Surgutneftegaz) through pipelines (Map B-3) to the major Usinsk junction (149 km), whence it goes westward by an old pipeline constructed earlier for the Komi oil production (Komineft company) in the Usinsk area. The Kharyaga deposit is one of three in Russia that are being developed according to the terms of an Agreement on Section Production (SRP). The total oil reserves of categories A+B+C are estimated to 160.4 million tonnes, in the contract zone 97 million tonnes. The Kharyaga SRP was concluded on 20 December 1995 for a period of 29 years with the possibility of prolongation until 33 years. It came into force on 12 February 1999. Investors of the project are the joint-stock company Total Exploration Development Russia (France, 50 %), Norsk Hydro Sverige A.B. (Sweden, 40 %) and the joint-stock company Nenetskaya Neftyanaya Kompania (Russia, 10 %). The latter is controlled by the NAO Administration. Total Exploration Development Russia acts as the operator. Total's oil reserves are now estimated at 55 million tonnes, while during project development an extract of 45 million tonnes was estimated.[26]

A ca. 90 km long pipeline brings oil from the Tedinskoe field (company Lukoil-Komi company) and the Ardalinskoe field (Polyarnye Siyaniye [Polar Lights] company) to Kharyaga from the north-east. Another ca. 100 km long pipeline comes from the Yuzhno-Shapkinskoe (Sever-TEK company) and other fields in the west. The Shapkinskoe oil field area is also connected by pipeline southeastward to Usinsk in the Komi Republic.

In Varandey, minor amounts of oil have been shipped since 2000. A larger, all-year loading line was finished in 2002, with a 4.8 km long sub-sea pipeline from the onshore storage tanks. The amount of shipped oil increased from 200,000 tonnes in 2002 to 660,000 tonnes in 2007. A new oil terminal has recently (2008) opened, by the company Naryanmarneftegaz (a joint venture of Lukoil, 70%, and Conoco Phillips, 30%), to replace the old one. This terminal has started to send tankers directly to some destinations. Oil is also transported by shuttle tankers to Murmansk, where the oil is collected in larger tankers and transported to the world market via the Scandinavian coast. The terminal is constructed for a capacity of 12 million tonnes/year, with an onshore storage facility of 325,000 m^2. The loading platform lies 22 km offshore and is connected to the storage facility with a sub-sea pipeline[27]. In 2008, 1.9 million tonnes of crude oil was sent from the new terminal; the capacity for 2009 is estimated to be 8 million tonnes, most of it delivered through the new 150 km long pipeline (finished in 2008) from the Yuzhno-Khylchuyu oil field[28]. At Yuzhno-Khylchuyu another pipelilne junction centre with technological facilities is being developed (Map B-1).

Prirazlomnoe is another offshore terminal, with a storage capacity of 109,000 m^2. Under construction since 2002, it is situated 60 km offshore on an ice-resistant coundation standing on the sea bottom at a depth of 20 m. It will be operable by 2011 (postponed several times) and will reach a maximum annual production of 7.5 million tonnes[29]. The Priraz-

[25] http://www.adm-nao.ru/?show=statics&id=39

[26] http://www.promved.ru/articles/article.phtml?id=574&nomer=22

[27] http://www.neurope.eu/articles/87870.php

[28] Bambulyak, B. & Frantzen, B. 2009: *Oil transport from the Russian part of the Barents Region.* Status per January 2009. Svanhovd Environmental Centre. Svanhovd. 91 pp. http://img.custompublish.com/getfile.php/908406.900.qpqreacrqx/Oil_transport_2009.pdf?return=www.barents.no

[29] Bambulyak, B. & Frantzen, B. 2009, see above

lomnoe oil field is licensed to the company Sevmorneftegaz (Map O-5).

In the eastern part of Kolguev Island, a number of oil rigs have been producing minor amounts of oil and gas condensate since 1987 from the Peshchanoozerskoe oil field (Map A-3; company Arktikmorneftegazrazvedka). The production has been decreasing from 120,000 tonnes in 2002 to 50,000 tonnes in 2008. The oil is processed for local needs or accumulated in onshore storage tanks (capacity 75,000 tonnes) through the year, where it is collected by shuttle tankers (max. 40 000 tonnes) during the ice-free summer season (2-6 months) by an offshore pipeline docking station.[30]

Another pipeline constructed in 2005 brings oil from the Nyadeyyuskoe, Khasyreyskoe and Cherpayuskoe fields (company Rosneft) in the east (>250 km), and a pipeline branch from the Musyurshorskoe field (company Severnoe Siyaniye) in the south (ca. 70 km). This pipeline system joins the Khrayaga pipeline south of the NAO boundary at Verkhnekolvinsk (Komi Republic).

Pipeline systems are planned to connect the oil fields around Kharyaga both with the Yuzhno-Khylchuyu pipeline to the north, and with a possibly new tanker terminal to be built at Indiga to the west; this will ease pressure on the Usinsk pipeline, which does not have sufficient capacity, and the major export route will then be along the Arctic coast.

1.3.2. Effects of industrial activities on the environment reported by scientists and authorities

To meet environmental standards in the rapidly developing hydrocarbon resource area is a challenge.[31] Pollution of the Pechora River started in the 1950s, mainly from the early prospecting in the upper part of the river in the Komi Republic. Spill water amounting to some 130,000 m^2 is estimated to have been dumped into the river, affecting practically all fish species[32]. After the well-known 1995 Usinsk oil spill[33] (Komi Republic) zooplancton species were reduced from 60 to 23 species; they had recovered to 57 species in 2006/7. The fish species are getting more specialised.[34] Effects on the fauna of the sensitive ecosystems of the Pechora River estuary and other coastal areas with its littoral marshes are continuously monitored.[35,36]

Ninety-five percent of the drinking water of the NAO comes from the Pechora River. The main problematic, persistent pollutants are arsenic and mercury, which are derived from industry in the upper part of the river (Komi Republic). There are plans to monitor the tributaries of the Pechora River until 2012/14. Of 44 polluters along the Pechora River, 37 have licenses, and 4 licenses have been withdrawn.[37]

There is a high pressure on reindeer pastures. Pastures with sufficient quality of lichen, which is important for the animals' digestion, have been reduced by almost 20% from 1984 to 2002.[38]

The relevant government agencies have no practical possibility or sufficient funding to really control pollution, although they know well the real situation.[39] The basic method to protect nature is the development of a framework of protected areas, taking especially care of estuaries/river mouths, lake-river systems coastal areas rich in biodiversity (Map O-2, paragraph 2.4.7). The goal of the environmental protection authorities is to protect the main rivers and the entire coastal zone. New protected areas have recently been established: More-Yu and Pym-Va-Shor in the eastern part of Bolshezemelskaya Tundra, Kanon Bolshie Vorota in the Timan area, and Shoynskiy on the Kanin Peninsula. But oil interests do not necessarily stop at the border of a protected area. The borders of the large Nenetskiy Nature Reserve have already been changed due to the hydrocarbon interests. And even when the borders are not touched, polluted waters do not stop at the boundaries of protected areas. Eighty percent of the land east of the Pechora River is supposed to be degraded if pollution restrictions are not intensified.[40]

[30] Bambulyak, B. & Frantzen, B. 2009, see above

[31] S. Chibisov, NAO Dept. of Natural Resources and Environment, oral presentation "Prospects of NAO economical development, environmental risks and the ways to eliminate them", EcoPechora Conference, Naryan-Mar, 13-14 May 2008.

[32] A. Lukin et al., Akvaplan.niva/PINRO, oral presentation "Environmental problems of the Pechora River: Past, present and future", EcoPechora Conference, Naryan-Mar, 13-14 May 2008.

[33] http://www.drj.com/articles/spr01/1402-01p.html

[34] A. Lukin et al., see above

[35] M. Gavrilenko et al., AARI/MMB/NPI, oral presentation "Seabirds of the Pechora Sea under conditions of modern exploration of the Arctic Shelf", EcoPechora Conference, Naryan-Mar, 13-14 May 2008.

[36] O. & I. Lavrinenko, NAO Dept. of ROSPRIRODNADZOR/NAO Dir. of Nat. Prot. Areas, oral presentation "Littoral marshes as unique and most sensitive ecosystems during oil extraction and marine shipping", EcoPechora Conference, Naryan-Mar, 13-14 May 2008.

[37] A. Osina, Dvina-Pechora Basin Water Dept., oral presentation "Water use status of the Pechora River in NAO", EcoPechora Conference, Naryan-Mar, 13-14 May 2008.

[38] T. Romanenko & M. Kanyukova, Naryan-Mar Station of Russian Acad. of Agric., oral presentation "Dietary habits and ecology of reindeer in the NAO", EcoPechora Conference, Naryan-Mar, 13-14 May 2008.

[39] V. Bezumov et al., NAO Dept. of ROSPRIRODNADZOR, oral presentation "Problems of environmental protection legislation towards NAO", EcoPechora Conference, Naryan-Mar, 13-14 May 2008.

[40] I. Lavrinenko, NAO Dir. of Ptrot. Areas, oral presentation "Protected Areas – the foundation of the environmental protection

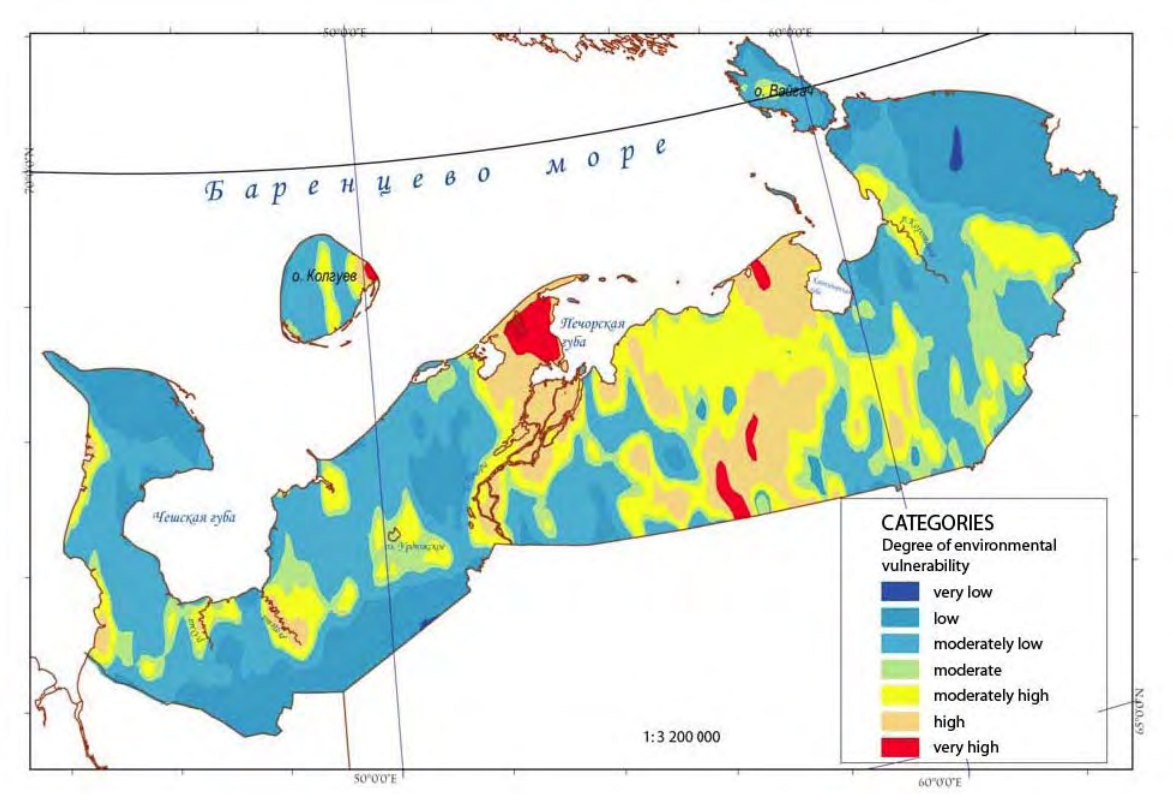


Figure 1-2: *Map showing zonation of the NAO according to environmental vulnerability under the pressure of industrial development (from Korobov, V.B. & Shumilova, Yu.N. 2008). See also Map O-7.*

The Pomor State University has developed a method to establish zonation of the area with respect to a combination of vulnerability and environmental pressure (Figure 1-2; Map O-7).[41]

1.3.3. Analysis of license documents

by E. Khmeleva, Cand. of Legal Sciences, and T. Grechushkina, attorney, Legal Center Rodnik

1.3.3.1. Legal Analysis Procedure

There are at present 70 licenses issued for operating in the NAO (Nenets Autonomous Okrug). Copies of 38 licenses were passed on to Yasavey upon request (Table, section 2.4.8.). [42]

It should be noted that, in this case, the NAO Subsoil Resource Management has ensured the right of NAO's indigenous peoples' representatives to have access to information on economic activities carried out within indigenous peoples' territories, which may impact on their traditional way of life. The license documents contain data on environmental protection and compliance with indigenous peoples' rights.

The license agreements were analyzed on the basis of a questionnaire developed for this purpose containing two sets of questions indicative of compliance with legal requirements:

1) questions related to compliance with legislation on the aspects of NAO's indigenous peoples' rights (concerning the requirements of entering into an agreement with indigenous peoples and compensating for all losses as a result of land plots withdrawal);

2) questions related to compliance with legislation on environmental protection (namely, the State Environmental Assessment of documents substantiating the license to use subsurface resources, documents providing the obligation to recultivate land upon project termination, as

framework of the NAO", EcoPechora Conference, Naryan-Mar, 13-14 May 2008.

[41] Korobov, V.B. and Shumilova, Yu.N. 2008: К вопросу о районировании территории Ненецкого автономного округа под задачу освоения нефтяных месторождений . (About the question of zonation of Nenets Autonomous Okrug under the problem of development of oil deposits.) pp. 155-159 in P.A. Feklistov.: *Экологические проблемы Севера: межвузовский сборник научных трудов (Environmental Problems of the North: an interuniversity collection of proceedings)*. Arkhangelsk: Publishing House AGTU, 2008, Release 11.

[42] According to information from the Directorate for Subsoil Resource Management for the Nenets Autonomous Okrug (NAO Subsoil Resource Management) responding to inquiries by lawyers of the Legal Center Rodnik, as filed by the Association of Nenets People Yasavey. Letters No.87 of 16 February 2009 and No. 216 of 1 April 2009, sent by Directorate of Subsoil Resource Management for NAO under the Federal Agency for Subsoil Resource Management (Rosnedra).

well as on compliance with other environmental protection requirements).

The questions have been formulated taking into account results obtained from the review "Legislative requirements for the hydrocarbon industry and protection of the rights of numerically small indigenous peoples of the Nenets Autonomous Okrug" prepared by lawyers of Legal Center Rodnik for the present project (see Appendix 2 and Section 1.2.3.).

1.3.3.2. Validity periods of licenses issued for operations in the NAO

It is also necessary to focus on validity periods of the license agreements issued. The large majority of the analyzed license agreements were issued for periods between five (as provided for geological survey works) and 25 years.

There are three agreements that are extraordinary in terms of being issued for much longer periods. The first is the license issued for OOO Lukoil-Komi for the period from 09 July 2008 to 12 April 2081 (ref.no. 79, see section 2.4.8., map O-6), i.e. 73 years, for the purposes of geological survey, hydrocarbon exploration and development of the Inzyreysk oil field. Second, OOO Lukoil-Komi has been granted the right to develop the Tedinsk oil field from 09 August 2008 to 31 December 2061 (ref.no. 40), i.e. within 53 years. Third, the Yuzhno-Khylchuyu oil-and-gas field can be developed by OOO Naryanmarneftegaz from 23 September 2004 to 12 April 2042 (ref.no. 54), i.e. within 38 years.

Although such long terms do appear in compliance with the legislation[43], they differ significantly from the others.

1.3.3.3. Quantitative Analysis of questionnaire issues

1) Does the agreement comply with the requirements of the federal law "On environmental assessment", as valid prior to the enactment of 30 December 2008 of the Federal Law N 309-FZ "On introduction of changes into article 16 of the federal law 'On environmental protection'", and those provided by other legislative acts of the Russian Federation – in other words, has the State Committee on Environment issued a positive conclusion with regards to documents and substantiation of the appropriate licenses?

None of the agreements clearly states whether a State Environmental Assessment has actually been carried out or not. 17 agreements contain provisions for the customer's responsibility to initiate each project phase only after acquisition of the required expert conclusions.

The majority of license agreements (21) do not provide for the requirement of State Environmental Assessment to be carried out.

2) Compliance with legal requirements concerning the rights of indigenous peoples of the Nenets Autonomous Okrug:

A) Does the license agreement express the requirement for the company to enter into and fulfill the agreements with NAO indigenous peoples, as stipulated by the NAO law N 416-OZ of 2 June 2003 "On Subsoil Resource Management"?

The above issue is neglected in 23 out of 38 analyzed agreements.

Eleven license agreements do provide for the subsoil resource users' obligation to agree with the NAO Administration on allocating funding for the okrug's social and economic development programmes, and to include programmes aimed at observing the interests of indigenous peoples. Furthermore, some license agreements (for the Tedinskiy oil field to be developed by OOO Lukoil-Komi, for the Sredne-Kharyaga oil field to be developed by OAO Pechoraneft, and for Musyurshorskiy oil field by OOO NK Severnoe Siyanie – ref no.s 40, 64, 140) state that a special agreement shall be entered with the Association of Nenets People Yasavey. The license issued to OOO NK Severnoe Siyanie (ref.no. 140) also specifies the concrete terms and conditions to be provided for in such an agreement.

Instead of direct obligations to enter into agreements with indigenous peoples, four license agreements provide for the establishment of Territories of Traditional Nature Use (TTNU) within the license area. These are the licenses issued to the company OOO NK Gornyy Oil for the development of the Ponchatinsk field (ref.no. 36; the license specifies the TTNUs Druzhba Narodov and Put Ilicha to be established in the license area), to OAO Surgutneftegas for the development of the Sarutayusk field (ref.no. 73; work to be carried out with regard to the TTNU Erv), and to ZAO Severgeologiya for two licenses to carry out geological survey in the Yambotinsk and Zapadno-Efremovsk areas (ref.no.s 34, 42), providing for the observation of the TTNU Druzhba Narodov.

[43] According to Article 10 of RF law "On subsoil resources", the areas for mining operations shall be leased for the 'term necessary for the deposit's development to be calculated on the basis of a feasibility study, which is to provide for sustainable resources development and protection", that means, a maximum period is not defined.

B) Does the license agreement provide for the requirement to compensate for all damages incurred as a result of withdrawn land plots, as provided by NAO law N 671-OZ of 29 Dec. 2005 "On regulation of land relations within NAO"?

Practically none of the agreements analyzed, except for one, stipulate the requirements to compensate for any damage caused by natural resources exploitation.

The only license agreement specially providing for the owner's liability to compensate for damage caused to subsurface resources, environment or any third parties is that issued to OOO Naryanmarneftegaz for the Yuzhno-Khylchuyu field development (ref.no. 54).

C) Other conditions to be observed in the license agreement with respect to indigenous peoples of the NAO

None of the license agreements provides for any other special requirements to observe the rights of NAO's small ethnic minorities – despite the fact that neither the RF nor the NAO legislations are limited to agreements with companies operating within the traditional residence areas of indigenous peoples.

3. Compliance with requirements relating to environmental protection and land use:

A) Does the license agreement require that soil recultivation be ensured upon project completion, as stipulated by paragraph 4, Article 88 of RF Land Code and Regulation N 71 "On Approval of the Rules for Protection of Mineral Resources issued by Gosgortekhnadzor" (State Committee for Industrial and Mining Safety Supervision) of 6 June 2003?

37 out of 38 license agreements do provide for subsoil user's responsibility to ensure soil recultivation is carried out on completion of resources development operations.

Such responsibility is not provided for in only one license agreement for the Kharyaga oil field development by the French OAO "Total RRR" (ref. No. 58; terms and conditions of Agreement on section production, see 1.3.1).

B) Does the license agreement provide for the requirements related to environmental measures, environmental restoration, sound management and restoration of natural resources, as well as ensuring environmental safety, as stipulated by federal law N 7-FZ "On Environmental Protection" (Article 34) of 10 Jan. 2002?

All the 38 agreements analyzed do provide for the environmental protection requirements to be complied with.

The most common wordings are:

"License Holder shall duly comply with well abandonment procedure, other legal requirements of RF legislation, as well as duly approved standards (rules or regulations) to govern safe conduct of operation and protection of mineral resources and natural habitats" (as stated in the license issued to OAO Surgutneftegas for the Vostochno-Simbeysk field development).

"For the purposes of sustainable development of natural resources, environmental protection and safe conduct of operations, the License Holder shall be governed by this Agreement and generally applicable laws and legal acts of the Russian Federation and the Nenets Autonomous Okrug concerning the sustainable development of natural resources, environmental protection and safe conduct of operations" (provision for Yambotinsk license area, ZAO Severgeologiya, ref.no 34).

C) Does the license agreement require that any other terms and conditions be complied with regarding the protection of environment and natural resources?

All the license agreements analyzed do stipulate environmental protection requirements. Among them – the use of state-of-the-art technologies, sustainable development, environmental measures, gas flaring, etc.

4) Do terms and conditions of the license agreements provide for any limitations on the access to information about the license agreement or environmental protection requirements, or indigenous peoples' rights contained therein?

None of the agreements provides for any special limitation on the access to information about the license agreement or any information contained therein. Although, many documents do stipulate regulating conditions on confidentiality with regard to the geological data on the natural resources to be obtained in the course of field development.

1.3.3.4. Conclusions

The analysis of issued license agreements for the development of NAO's resources concludes as follows:

1) As it follows from the license agreements and letter No. 216 of 01 April 2009 from the NAO Subsoil Resource Management, it is impossible to give a definite answer to whether positive findings of the

State Environmental Assessment Committee have been made or not. The NAO Subsoil Resource Management appears to have no relevant information, as this matter is not covered by any of the agreements.

2) Most of the license agreements have been found to poorly comply with the requirements to consider NAO's indigenous peoples' rights to maintain traditional way of living and protection of their original environment. Such rights are provided by federal law N 82-FZ "On guarantees of the rights of numerically small indigenous peoples of the Russian Federation" of 30 April 1999; by NAO law N 416-OZ "On subsoil resource management" of 2 June 2003; by NAO Law N 671-OZ "On regulation of land relations in NAO" of 29 December 2005.

As stated above, the subsoil user's responsibility to make agreements with indigenous peoples is provided only in 11 of the 38 agreements under the detailed analysis, and 70 provided in response to license agreement inquiry. At the same time, only four out of these 11 specify that such agreements shall be made with the Association of Nenets People Yasavey, while the other seven only refer to the interests of indigenous peoples as a part of overall social and economic programs to be funded with participation of the subsoil resource users (license holders). None of the licenses provides for an agreement to be concluded directly with communities or any other associations of indigenous peoples supporting a traditional way of life within the definite license areas.

In reality, it is up to the license holders whether to enter into such agreements or contracts with the representatives of indigenous peoples or not. The licenses do not obligate such agreements be made.

3) The fact that only one agreement stipulates license holder's liability to compensate for losses, as may be caused to any third party (to include representatives of indigenous peoples) as a result of resources development operations, also indicates poor attention to ensuring the rights of indigenous peoples when issuing licenses. According to paragraph 4, Article 29 of NAO Law N 671-OZ "On regulation of land relations within NAO" of 29 December 2005, "… the requirements for leasing land plots within the areas of traditional residence and economic activity of Northern indigenous peoples must provide for compensation of all losses, as may be incurred by land plot owners, land users, land owners or lessees as a result of such land being withdrawn for any state or municipal purposes, or temporal occupying of such lands plots, or limitation of the rights of land plot owners, users or lessees, or deterioration of land quality arisen from other parties' operations".

Thus, the above requirement must be included either into the license agreement or concession documentation.

At the same time, where the above requirement remains unobserved, indigenous peoples, or associations of such, may claim for compensation of the damage caused to their land or original environment, or traditionally maintained life style, or property, as provided by RF Civil Code. However, the imperfect methods for assessing damage caused to environment or original habitats make it very difficult to recover just compensation.

4) All the license agreements fully oblige license holders to ensure soil recultivation in the areas damaged due to natural resources development, as well as to comply with other environmental protection requirements, which are provided by Federal Law N 7-FZ "On environmental protection" of 10 Jan. 2002, RF Law "On mineral resources" and NAO legislation.

At the same time, as reality shows, the environmental protection requirements are not being observed by all license holders. This situation violates the rights of NAO's indigenous peoples to protection of their original environment and traditional way of life.

These are, in particular, the September 2002 images of oil exploration and production areas taken during a helicopter transsect from Varandey to Kharyaga in October 2002 (Plates 9 and 10, photos by Yasavey), which clearly illustrate the fact that subsoil users do violate the environmental protection requirements. On some of them one can easily see the tundra soil damaged by heavy vehicles, which means that they are being used in the summer period. On the other hand, the annually approved legal acts of NAO Administration prohibit the use of mechanical vehicles in tundra zone in the summer period. Thus, in 2002, when the images were made, mechanical vehicles could not be used in the tundra from May by virtue of the resolution "On terminating the use of mechanical vehicles in the Tundra Zone of the NAO on winter roads" by the NAO Administration. The use of winter roads could be resumed in the beginning of the winter period based on the resolution "On permitting the use of mechanical vehicles in the Tundra Zone of the NAO on winter roads". Therefore, by using vehicles within the tundra zone of the NAO in summer, license holders violate environmental protection requirements.

5) The analysis of license agreements for resources development in the NAO has revealed the definite trend to disregard the rights of indigenous peoples when leasing land for development. Most of the license agreements, which to various extent stipulate subsoil users' liability to observe the rights of indi-

genous peoples, were concluded in 2001-2003, while those recently made (2008-2009) do not provide for such liability.

6) Terms and conditions of license agreements do ensure the right of indigenous peoples to have access to the information on activities being carried out within the areas of their traditional residence. Copies of the license agreements have been provided by NAO Subsoil Resource Management in response to the request filed by the Association of Nenets People Yasavey. None of the agreements appears to contain any special limitation on the access to information on such license agreements or any information contained therein. Although, many documents do stipulate the conditions of relations regulation and confidentiality with regard to the geological data on the natural resources to be obtained in the course of field development.

Generally, it can be concluded that the license agreements for resources development in the NAO do not fully ensure the rights of indigenous peoples to protect their traditional way of life and original environment as provided by federal and regional legislation.

1.3.4. Attitude of oil companies towards indigenous peoples

It is not easy to ascertain if companies keep to environmental regulations, and it is widely understood that unlawful conditions prevail in connection with many oil installations. Some installations, especially older ones, are built according to low safety standards and frequently experience minor failures. Unfortunately, there is a tendency among many companies to withhold information on environmental damage like minor leakages and release of pollutants. Reindeer herders who wanted to document leakages have even reported that they were physically attacked by oil workers[44].

When unlawful environmental damage becomes publicly known and the responsible company can be identified, it is normally fined by the authorities. However, it is not known how much effort is put into such investigations.

International involvement in oil exploration and exploitation is by law channeled through Russian registered joint ventures. Twenty-four different companies or joint ventures have a total number of 70 license areas in the NAO[45] (Map O-6). Only one of them, the Polyarnye Siyanie company, continually receives positive references from all parties, including reindeer herders, for their proper environmental policies and use of environmentally clean technologies. Polyarnye Siyanie has been producing oil at the Ardalinsk oil field since 1994. ConocoPhillips participates with a share of 50% (Arkhangelskgeoldobycha has 30% and Rosneft, 20%).

All land assigned to reindeer husbandry is state land. The extent of this land is often cited to be 73% of the NAO[46], but no maps are available that show the boundaries. Before the oil age, more than 90% of the land was classified as pastures, as shown on our map (Map O-3). The remaining land has changed its status through negotiations. Negotiations for agreements regarding compensation for lost land are the only way of influencing the development.[47] There is no possibility for indigenous people to change major, politically approved decisions. The negotiated agreements are normally kept confidential as a precondition by the companies, but they are calculated by using certain standards defined by government authorities.[48] Reindeer herders get only compensation for the calculated loss of reindeer pastures and reindeer. There is no compensation for loss of fishing, hunting and gathering areas, which form a considerable basis for reindeer herders' subsistence economy. It would be imortant to institutionalise negotiations between traditional land users, government authorities and companies in order to define suitable and fair guidelines.

The Association of Nenets People Yasavey successfully started a "Culture of dialogue" with the stakeholders. The failure of this initiative in attempting to institutionalise the process can be attributed to the large turnover of leading personnel both within government authorities (frequent exchange of governors and entire political staff) and the oil companies.[49]

There are numerous examples of good relations at the local level between companies and reindeer herders. Companies often assist with helicopter transportation of people and goods between city, villages and pastures. This may compensate to some degree for high fuel prices and other disadvantages brought by modern developments in the region, but makes reindeer herders dependent on the goodwill of the companies.

[44] Oral presentation with video clip by a representative of Yasavey at ENSINOR workshop, Arctic Centre, Rovaniemi, Dec. 2007

[45] Letter from Federal Agency for Subsoil Resources Rosnedra, NAO branch, of 16 Feb. 2009

[46] S. Chibisov, NAO Dept. of Natural Resources and Environment, EcoPechora Conference, Naryan-Mar, 13-14 May 2008.

[47] Stammler, F. & Peskov, V. 2008: Building a 'Culture of dialogue' among stakeholders in north-west Russian oil extraction. *Europe-Asia Studies 60 (5)*, 831-849.

[48] See chapter 1.2.3

[49] Stammler & Peskov 2008, see above


Single track

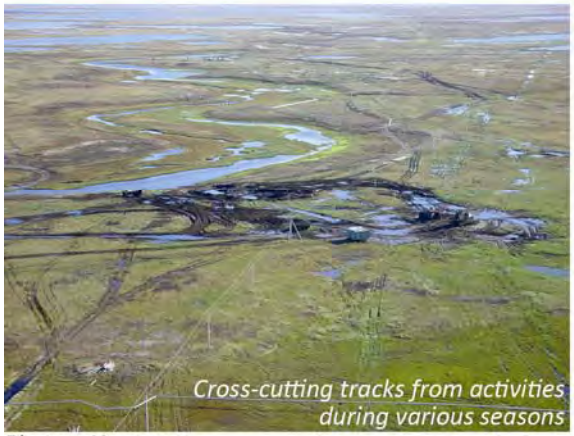

Multiple tracks from frequent driving on frozen ground with little snow cover

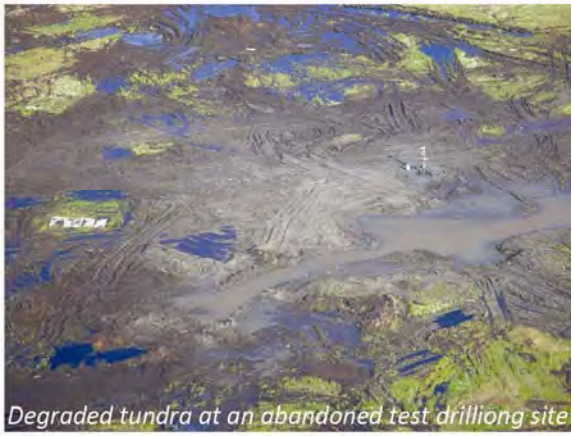

Pattern of cross-cutting tracks, partly from driving on unfrozen ground


Pattern of cross-cutting tracks from driving on unfrozen ground


Heavily degraded tundra from driving with tracked vehicles, close to oil teminal Varandey

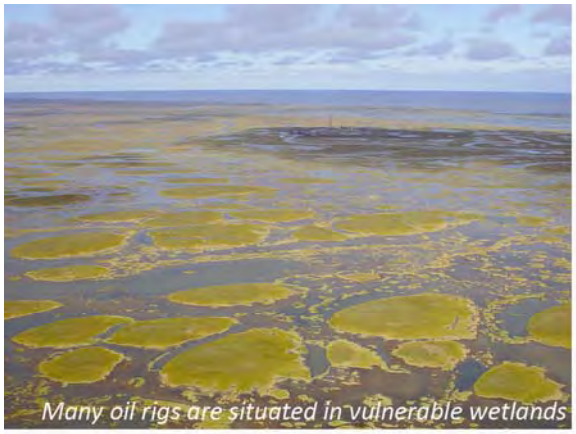

Degraded tundra at an abandoned test drilling site


Cross-cutting tracks from activities during various seasons


Degraded tundra at an abandoned test drilliong site

Photos: Yasavey, transsect Varandey-Kharyaga, September 2002

PLATE 9: Degradation of tundra through tracks


Many oil rigs are situated in vulnerable wetlands


Test drillings do not only disturb the soil layer, but also leave behind garbage and scrap


Tracked vehicle traffic between drilling sites is unfortunately not restricted to defined tracks


Test drilling activity around the year leaves distinct scars in the tundra


Scrap is not always removed after activities have stopped

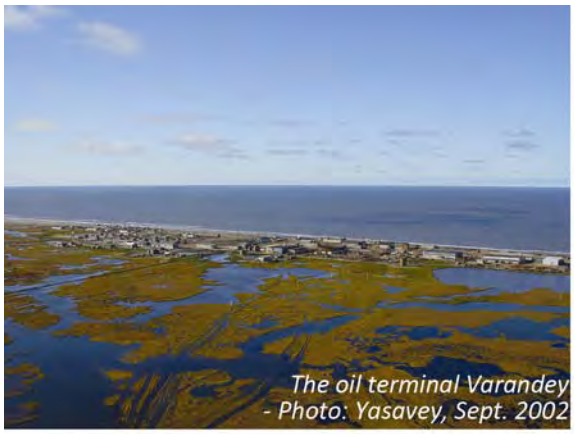

Traffic in summer on unfrozen ground, like here along a pipeline, is prohibited by law


Test well


Even when tidied up, a test well site will be a scar in the tundra for decades - Photo: Yasavey, July 2007

Photos: Yasavey, route Varandey-Kharyaga, Sept. 2002 (except lower right)

PLATE 10: Degradation of tundra through oil facilities


The oil terminal Varandey
- Photo: Yasavey, Sept. 2002


Oil pipeline crossing a lake near Varandey
- Photo: Yasavey, Sept. 2002


Oil pipeline crossing a small river at Kharyaga
- Photo: Yasavey, June 2005


Drilling site on Kolguev Island
- Photo: Yasavey, June 2007


Kharyaga large-scale oil production facility
- Photo: ZVR, May 2008


Electric power lines,Kharyaga
- Photo: Yasavey, May 2007


Gas flare at the Kharyaga facility
- Photo: Yasavey, May 2007


Oil facility at of Polar Lights Company at Ardalin-skoe, often used as an example of environmentally sound oil production - Photo: Yasavey, August 2004

PLATE 11: Degradation of tundra through oil facilities

1.4. The questionnaire survey and its results

1.4.1. Methods of data acquisition

Through methods including a questionnaire developed by project leader O. Murashko, selected areas of traditional nature use in the Nenets Autonomous Okrug have been mapped based on the traditional knowledge of the indigenous people.

The methodological basis for documenting traditional knowledge was developed in the UNDP Practice Note "Tr
aditional Knowledge, Access to Genetic Resources and Benefit-Sharing" (Draft of 20 December 2004), which was developed on the basis of the Convention on Biological Diversity, 1992 and the UN's "Agenda 21". The document focuses especially on recognition and strengthening of the role of indigenous people and local communities in sustainable development. In particular, it underlines the need to protect indigenous peoples' land from activities which are harmful to the environment or, according to the indigenous people questioned, unacceptable in terms of social and cultural development. Governments were recommended to create tools for encouraging active participation of indigenous people and local communities in development, on the national political level, of laws and programs relating to rational use of natural resources and other procedures which may have effects on local people. Governments should involve indigenous people and local communities, on both national and local levels, in implementation of strategies for the use and preservation of natural resources, and other relevant programs implemented to support the sustainable development strategy (Agenda 21, Section III, Chapter 26).

It should be underlined that the methods we developed to interview the communities and indigenous people, and mapping the areas of traditional nature use are based on on-site work with people pursuing a traditional way of life. The respondents were mostly interviewed by co-villagers who were trained for this purpose at seminars in Naryan-Mar. The questionnaire covers questions about types of traditional nature use like reindeer husbandry, hunting, fishing, gathering, product processing and preparation. How much reindeer, hunting, fishing and other products a family consumes was also of interest. During the interviews the areas of traditional nature use were drawn on maps using symbols developed for this purpose.

Each interview lasted about two hours. Many responses were given in the form of narratives about the problems of reindeer husbandry, fishing and subsistence under modern conditions. To standardise the results of the interview, each interview concluded with an additional test in which the basic components of traditional subsistence activities and other relevant activities, practices and attitudes were investigated through questions requiring responses like yes/no or numbers.

The interviews revealed important information about what the various traditional subsistence activities contribute to the livelihoods of Northern indigenous peoples. During interviews, the contribution of a particular traditional subsistence actitivity was investigated and verified by posing questions in different ways. We asked, for example, a question about how much fish a family can catch and consume per year and daily. We then asked how many days a week this family consumes fish during a particular season. Thus, we know that a reindeer herder's family of 4-5 people eats 5-7 whitefish or other fish almost every day except for the winter season when they slaughter reindeer. It means that annually a family of 4-5 people may consume about 1-1.5 tons of fish, making us re-evaluate the role of fish in reindeer herders' diet.

It should be noted that in cases when reindeer herders were compensated for damage, it was only taken into account the value of the withdrawn deer pastures and expected decrease in the number of reindeer calculated in terms of pasture capacity for reindeer grazing. At the same time, compensations for water reservoirs badly damaged by industrial activities were paid only to the state. No compensation is rendered for the loss of wild plants which play an important role in the life of Northern indigenous peoples.

The collected material – questionnaires, audio recordings of interviews, maps – document the traditional nature use of each farming unit and may serve as a database for negotiating with companies the ways to minimise the negative effects of industrial projects and defining the extent of compensation payable for damage to traditional livelihoods, which would correspond to the long-term extent of the damage caused to areas of traditional nature use. The material can also be used when defining the borders of areas of traditional nature management and future TTNUs.

1.4.1.1. Selection of respondents

Interviews focused on traditional economic and subsistence activities, on mapping the areas of traditional nature management, and on the transformation of traditional nature management over the last 30 years, when oil-and-gas fields started to be developed in the area.

Therefore, when selecting respondents, preference was given to families pursuing a traditional way of life. The majority of such families are Nenets. Respondents from the Kanin Peninsula also include the Komi. Three non-indigenous men we interviewed are married to local Nenets women. Respondents from the vilage of Indiga noted that some of the employees of their SPK are also of Komi and Russian origin.

In the studied areas, traditional nature use means that the majority of people are engaged in reindeer husbandry – they combine seasonal movements with fishing, hunting and gathering of wild-growing plants. Only a small number of people is predominantly engaged in fishing and hunting. Therefore, our respondents were mainly reindeer herders, including retired ones.

Following cultural traditions, households are headed by men, whose traditional role it is to communicate with strangers. For this reason our selection shows a gender imbalance: out of 103 respondents 82 were men and only 21 women. Most of these women were widows or were young and unmarried.

To understand the importance of products from traditional activities for people who are living in rural areas but are not engaged in reindeer husbandry, we also interviewed 14 local people whose main income is their wages: vehicle and tractor drivers, people working in schools, kindergartens, militia and meteorological stations. We categorised them into *experts (of non-traditional work)* and *administration (Boxes 10 and 11)*.

The questionnaire opens with the question about the respondent's age. When processing the questionnaires, we thought it expedient to classify all people of working age into a single group – respondents' age varied between 18 and 55. The other group included elder people who said they were retirees and not working at that moment. Thus, our selection included 86 people at the age of 18-55 and 17 non-working retirees.

While analysing the questionnaires, we also considered it expedient to differentiate between respondents whose families had 1-3 members those with larger families. This reflects a general distinction between large traditional families and smaller modern ones, consisting of single reindeer herders, unmarried mothers or lonely elderly people.

Box 10: Interviews, geographical and social distribution

	Kolguev Island (Bugrino)	Kanin Peninsula (Nes)	Malozemelskaya Tundra (Indiga)	Malozemelskaya Tundra (Nelmin Nos)	Bolshzemelskaya Tundra (Krasnoe)	Bolshzemelskaya Tundra (Khorey-Ver, Karatayka)	Total
Questionnaires	14	29	16	20	15	9	**103**
Maps (incl. other map information)	0 (12)	20	16(18)	20	15	5	**76 (90)**
Reindeer herders	2	21	10	11	11	9	**64**
Reindeer herders, retired	6	4	4	2	1	0	**17**
Hunters, fishermen	0	2	0	1	0	0	**3**
Administration	1	0	0	1	0	0	**2**
Experts, non-trad.	4	2	2	2	2	0	**12**
Unemployed	1	0	0	3	1	0	**5**
Residents, working age, 18-55	8	25	12	18	14	9	**86**
Residents over 55	6	4	4	2	1	0	**17**
Nenets	13	20	15	20	15	9	**92**
Komi	0	8	0	0	0	0	**8**
Others	1	1	1	0	0	0	**3**
Men	10	25	14	19	8	6	**82**
Women	4	4	2	1	7	3	**21**
No. of families w. 1-3 members	7	5	4	11	6	1	**34**
No. of families w. >3 members	7	24	12	9	9	8	**69**

Box 11:

Questionnaire respondents

ID: identification number
sex: M=male, F=female
age: in years
eth.: ethnic affiliation: N=Nenets, K=Komi, R=Russian, U=Ukrainian
prof.: professional affiliation: RH=reindeer herder, m=management position, F=fisher, H=hunter, V=veterinary, T=traditional work - not specified, C=other work in cooperative, PS=public service, R=retired, U=unemployed, (in parentheses)=former work

ID	sex	age	eth.	prof.
Kolguev:				
B-01	M	72	N	R(T)
B-02	M	59	N	R(T)
B-03	F	70	N	R(C)
B-04	M	34	N	U(T)
B-05	M	67	N	R(H/RH)
B-06	M	57	N	R(C/RH)
B-07	M	61	N	R(C)
B-08	M	37	N	PS(C)
B-09	F	?	N	RHm
B-10	F	?	N	R(PS)
B-11	M	44	N	T
B-12	M	52	N	T
B-13	M	58	U	C
B-14	F	76	N	R(PS)
Indiga:				
I-01	M	?	N	RH
I-02	M	49	N	RH
I-03	M	66	N	R(RH)
I-04	M	71	N	R(RH)
I-05	M	18	K	RH
I-06	M	22	N	RH
I-07	M	47	N	T
I-08	M	59	N	RH
I-09	M	63	N	R(RH)
I-10	M	33	N	T
I-11	M	33	N	RH
I-12	M	45	N	RH
I-13	F	?	N	R(C)
I-14	M	67	R	R(C)
I-15	M	61	N	R(RH)
I-16	F	56	N	PS
Krasnoe:				
K-01	M	50	N	RH
K-02	M	33	N	RH
K-03	F	36	N	U(T)
K-04	M	40	N	RH
K-05	F	48	N	C
K-06	F	46	N	C
K-07	M	40	N	RH
K-08	M	49	N	RH
K-09	F	37	N	PS
K-10	M	60	K	R(RH)
K-11	M	26	K	RH
K-12	M	48	N	RH
K-13	F	46	N	C
K-14	F	29	N	C
K-15	F	33	N	V
Karatayka:				
Ka-01	M	35	N	RH
Khorey-Ver:				
KV-01	M	40	K	RH
KV-02	M	26	N	RHm
KV-03	M	19	?	RH
KV-04	M	40	N	RH
KV-05	M	?	N	RH
KV-06	F	25	K	C
KV-07	F	53	N	T
KV-08	F	46	N	T
Kanin area (Nes and others):				
N-01	M	43	N	U(F)
N-02	M	30	N	RH
N-03	F	?	N	C
N-04	M	?	N	PS(RH)
N-05	M	54	N	PS
N-06	M	?	N	RH
N-07	M	48	N	RH
N-08	M	77	N	R(RH)
N-09	M	30	N	RH
N-10	M	34	N	RH
N-11	M	50	N	F
N-12	M	50	N	RH
N-12a	*F*	*?*	*N*	*C*
N-13	M	77	N	R(T)
N-14	M	?	N	T(RH)
N-15	M	59	N	R(RH)
N-16	M	54	R	PS
N-17	M	46	N	RH
N-18	M	48	K	RH
N-19	F	48	K	C
N-20	M	32	N	RH
N-21	M	32	K	RHm
N-22	M	19	K	T
N-23	F	19	N	C
N-24	F	42	K	RH
N-25	M	40	K	RH
N-26	F	29	K	C
N-27	M	26	N	RH
N-28	M	66	N	R(RH)
Nelmin-Nos:				
NN-01	M	27	N	RH
NN-02	M	52	N	U(T)
NN-03	M	42	N	U(RH)
NN-04	M	46	N	RHm
NN-05	M	38	N	PS
NN-06	M	42	N	RH
NN-07	M	47	N	RH
NN-08	M	40	N	T
NN-09	M	28	N	RH
NN-10	F	22	N	PS
NN-11	M	57	N	R(RH)
NN-12	M	49	N	U(RH)
NN-13	M	43	N	T
NN-14	M	44	N	T
NN-15	M	61	N	R(T)
NN-16	M	41	N	RH
NN-17	M	44	N	T
NN-18	M	41	N	PS/R
NN-19	M	45	N	RH
NN-20	M	29	N	RH

Seminar held in Naryan-Mar to train the interviewers, Sept. 2007

Olga Murashko, seminar leader, Sept. 2007

Map from test interview with one of the seminar participants, who is a reindeer herder

PLATE 12: Questionnaire survey


Nes - Photo: Yasavey


Khorey-Ver - Photo: Yasavey


Bugrino - Photo: Yasavey


Bugrino - Photo: Yasavey


Indiga - Photo: Yasavey


Indiga - Photo: Yasavey


Krasnoe - Photo: ZVR


Krasnoe - Photo: ZVR


Nelmin Nos - Photo: WKD


Nelmin Nos - Photo: WKD

PLATE 13: Centre villages of the study areas of the questionnaire survey

1.4.2. The study area

The study area includes residents of

- Kolguev Island,
- the Kanin area (reindeer herders' agricultural production cooperatives [SPK] Obshchina Kanin, SPK Voskhod, fishing SPK Severnyy Polyus),
- the Malozemelskaya Tundra (territories of SPK Indiga, SPK im. Vyucheyskogo, SPK Naryana-Ty),
- the Bolshezemelskaya Tundra, western part (territories of SPK Erv, SPK Kharp, SPK Druzhba Narodov, SPK Put Ilicha).

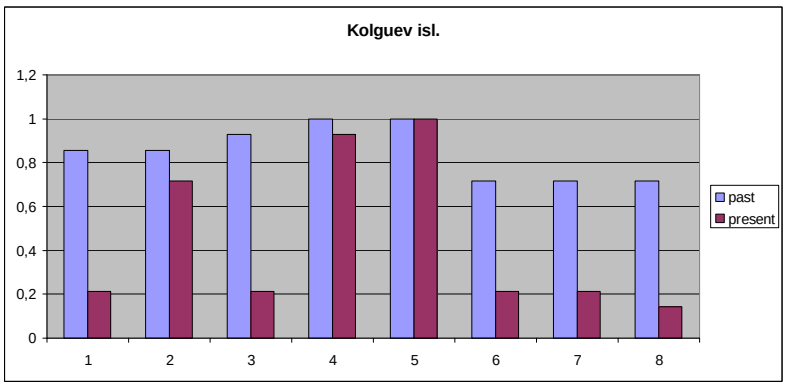
The respondents represent 103 households of 10 rural settlements with a significant proportion of reindeer herders (out of a total of 42 rural settlements in the NAO), with a total population over 6000 villagers. A list of respondents is given in Box 10. For information on the villages, communities and farming units, whose members were questioned, see sections 2.4.1. to 2.4.5. For a description of the study areas, see Section 2.2.

1.4.3. Socio-economic situation and traditional nature use

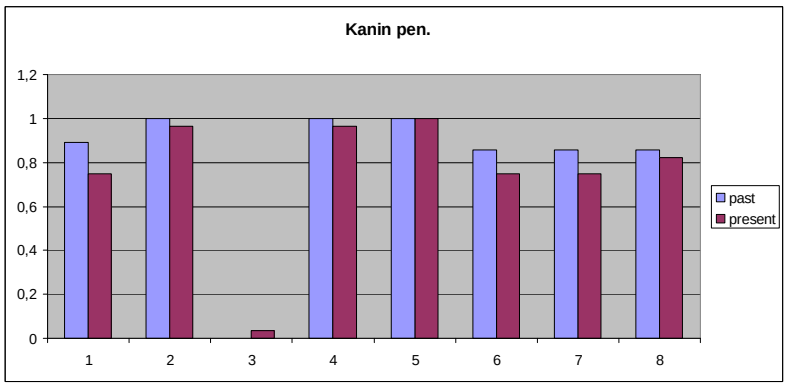
1.4.3.1. Evolution of traditional economic activity (TEA) from generation to generation

Analysis of responses on the questions on respondent's and respondent's parents' activities:

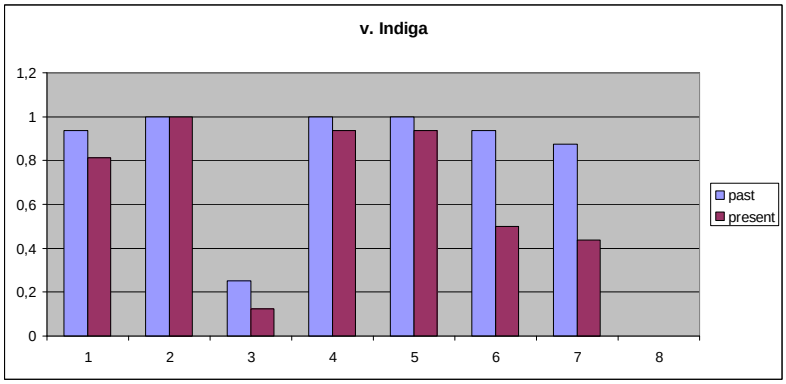
1. Reindeer husbandry
2. Fishing
3. Marine mammal hunting
4. Hunting
5. Gathering
6. Hides processing
7. Clothes and shoe manufacturing
8. Bartering and/or selling traditional products



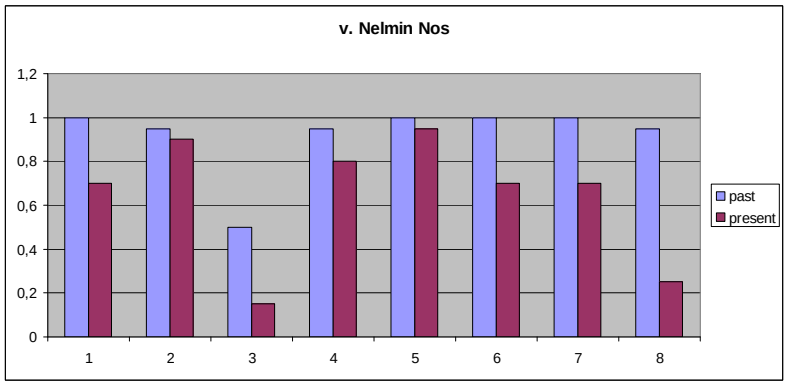
Kolguev: Engagement in reindeer husbandry and processing of reindeer products (1, 6, 7) has decreased by 3/4; engagement in fishing has decreased similarly (2); marine mammal hunting has decreased dramatically (3); hunting / gathering remains practiced by many (4, 5).



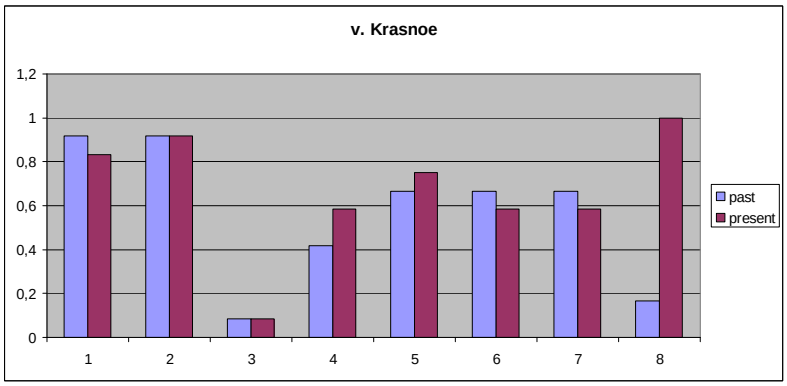
The Kanin Peninsula demonstrates a slight decrease in reindeer husbandry and processing of reindeer products (1, 6, 7). Other indices are about equal to the values registered for the previous generation.



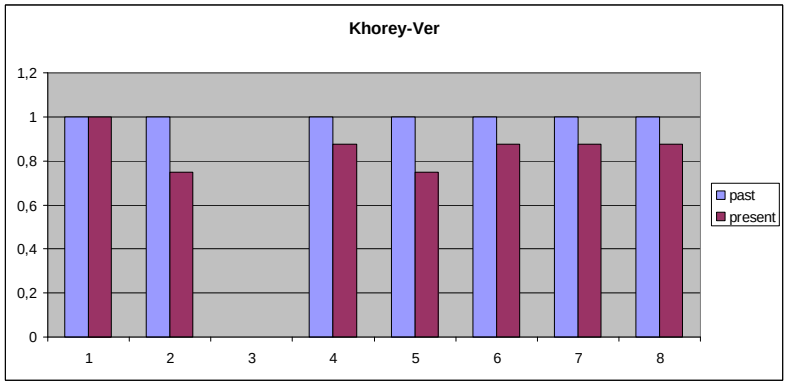
Indiga also demonstrates a decrease in reindeer husbandry and processing of reindeer husbandry products (1, 6, 7). Other indices are about equal to the values registered for the previous generation.



Nelmin Nos: Engagement in reindeer husbandry and processing of reindeer products has decreased by 1/3 (1,6,7); marine mammal hunting (3) and bartering and selling (8) has decreased dramatically; fishing, hunting and gathering (2, 4, 5) values still show a high importance.



Krasnoe: Engagement in reindeer husbandry and processing of reindeer products has slightly decreased (1,6, 7); interest in fishing, hunting and gathering (2,4,5) has risen; the role of bartering and selling (8) has increased to a large extent, which is explained by the proximity of sales outlet (Naryan-Mar).



Khorey-Ver shows a highlevel of engagement in reindeer husbandry (1), processing and selling of reindeer products (6,7,8); hunting (4) has not lost its importance either; fishing and gathering (2,5) show a slight decrease.

Karatayka: 1 respondent was interviewed, who is a reindeer herder and is involved in all types of TEA, like his forefathers. He is not engaged in sealing, bartering or selling.

The analysis shows that many respondents are occupied in TEA and such activities have decreased only slightly.

It should be noted that the TEA index is high for Kolguev and Nelmin Nos. Further on, we will see that present and past data on the high degree of engagement in TEA contradict the data obtained from questions about the role of TEAs in the lives and occupations of families living in Kolguev and Nelmin Nos. These data also apparently contradict the estimation by the respondents from these settlements of the role of traditional products (TP) in their diet (Kolguev, Nelmin Nos).

1.4.3.2. Analysis of answers to questions about the role of traditional activities in family's subsistence, diet and occupation

	Kolguev	Kanin	Indiga	Nelmin Nos	Krasnoe	Khorey-Ver
Traditional products as main means of subsistence and source of diet	29%	82%	75%	55%	86.7%	100%
Traditional products as necessary supplement to main income source	7%	12%	25%	15%	7.14%	0
Traditional products in addition to diet	64%	6%	0%	30%	3.57%	0
Specific share of traditional products in diet (qu. 9.2.1)	**62.5%**	**72.5%**	**66.88%**	**61.75%**	**75.33%**	**83.75%**

Traditional products in family's subsistance

	Kolguev	Kanin	Indiga	Nelmin Nos	Krasnoe	Khorey-Ver
Main occupation	29%	82%	75%	65%	89.3%	100%
Additional occupation	7%	12%	25%	20%	3.57 %	0
Support or leisure	64%	6%	0%	15%	7. 14%	0

Traditional activities in family's economy

It is evident that the role of products from traditional activities in the diet of the respondents from Nelmin Nos and Kolguev is underestimated. The data given by the Kolguev respondents about the role of traditional products in their diet also contradicts the high evaluation of such products in the diet of the same respondents, when they answered the question 9.2.1. ("To what extent do the total of traditional kinds of activities cover the needs of your family for food?").

Respondents' answers from Kolguev, where 64% stated that TEA for them only means additional subsistence and leisure time, can be explained by the selection of the respondents in terms of their social and age profile. This respondents included two active reindeer herders, six retired reindeer herders, four experts, one representative of the administration and one unemployed person.

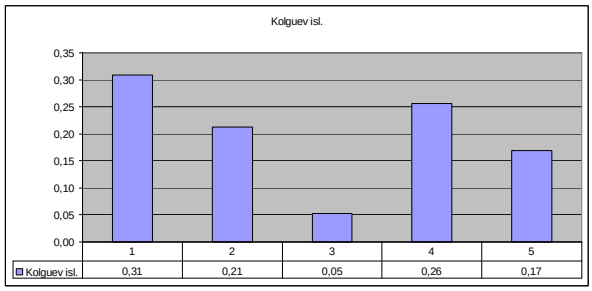
The 100% role of traditional kinds of activities in Khorey-Ver families' livelihood can be explained by the fact that only professional reindeer herders were interviewed there. The large proportion of products from traditional activities can also be explained by the long distance between the settlement and trading centres, as well as by high supply costs.

As to Karatayka**,** the interviewed reindeer herder estimates that traditional kinds of activities are the only source of families' subsistence and occupation and satisfy their dietary needs almost completely. Traditional foodstuffs are complemented by only the most basic products from the shop.

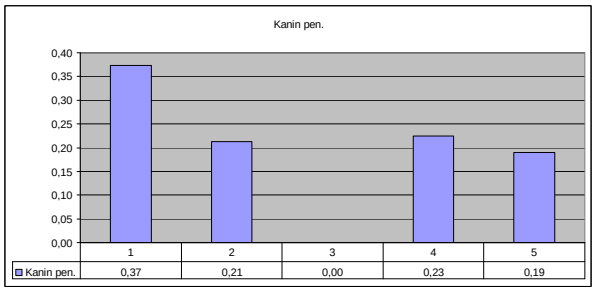
1.4.3.3. Estimations of contributions of various traditional activities to the diet

Question 9.1.: Specify (estimate on a scale from 1 to 5) the importance of different kinds of activity for life-support in your family:

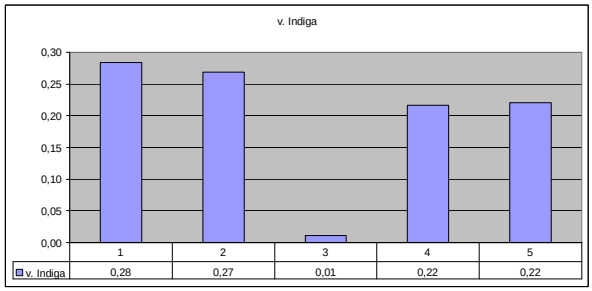
1. Reindeer husbandry
2. Fishing
3. Marine mammal hunting
4. Hunting
5. Gathering



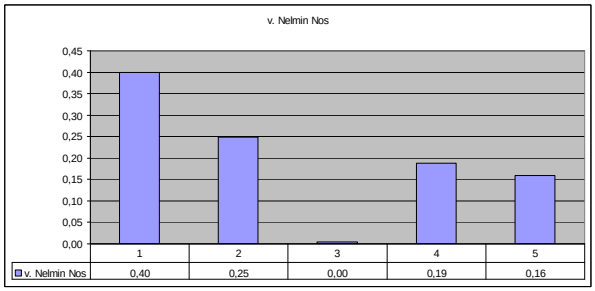
Kolguev



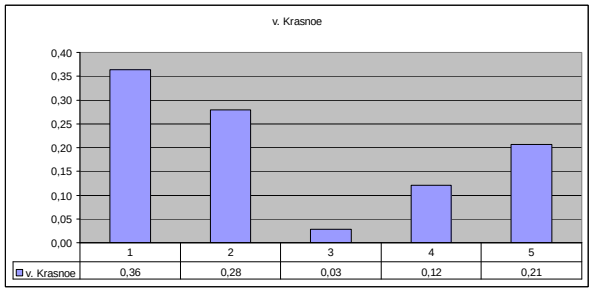
Kanin



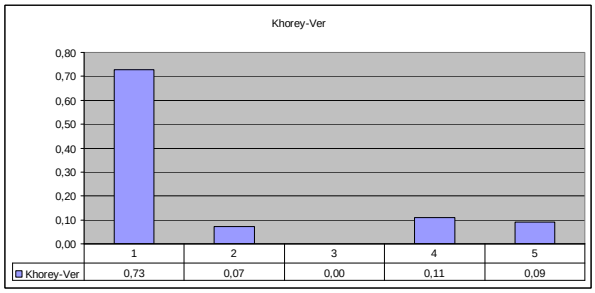
Indiga



Nelmin Nos



Krasnoe

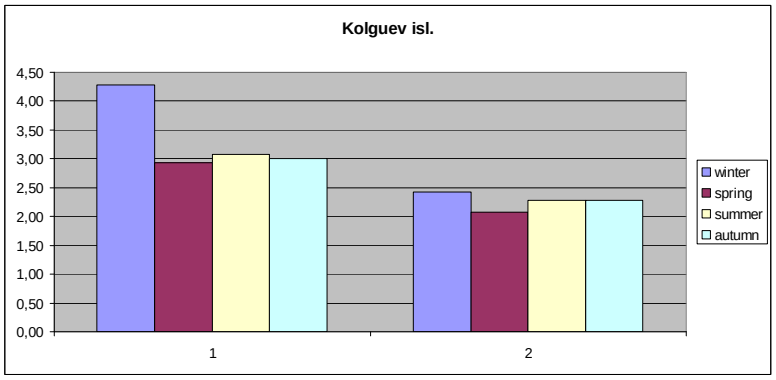


Khorey Ver

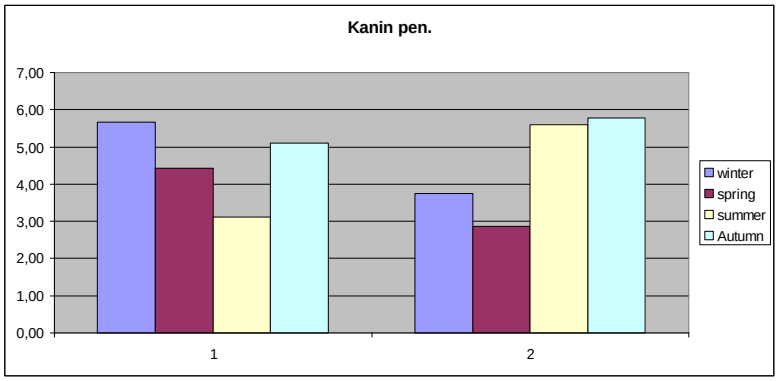
Respondents from many villages stated that reindeer products contribute 30-40% to their diet. Fishing and hunting products are ranked second. Respondents from Khorey-Ver were all reindeer herders and they estimated that reindeer products accounts for 70% of the diet. It can be anticipated that industrial projects will have a dramatic effect on their pastures and will therefore seriously affect these people.

As to Karatayka, the responding reindeer herder gave 5 points (the maximum score) to the contribution of reindeer husbandry, hunting and gathering products to his diet.

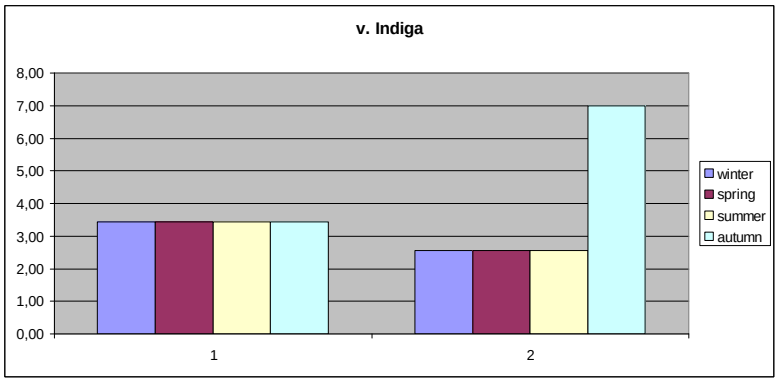
1.4.3.4. Average values for answers to questions concerning the seasonal consumption of reindeer meat (1) and fish (2)



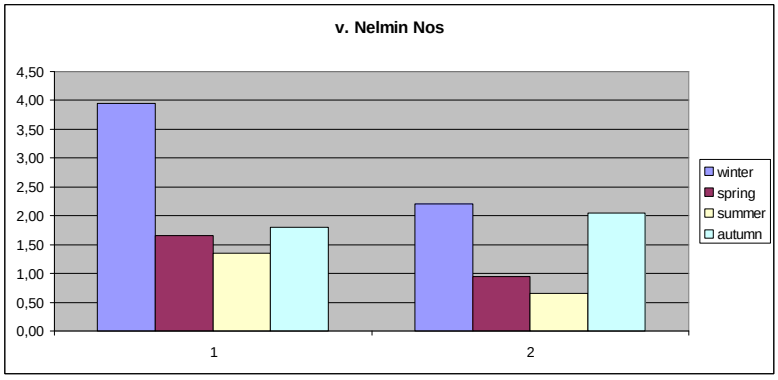
Kolguev: reindeer meat 3-4 times, fish 2-3 times



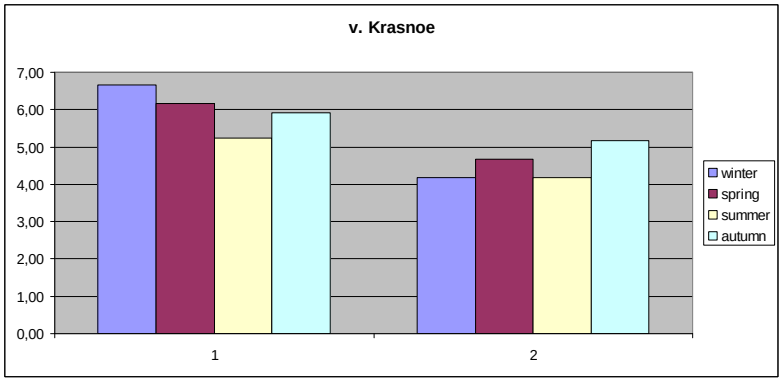
Kanin: reindeer meat 4-5 times, fish more than 4 times weekly



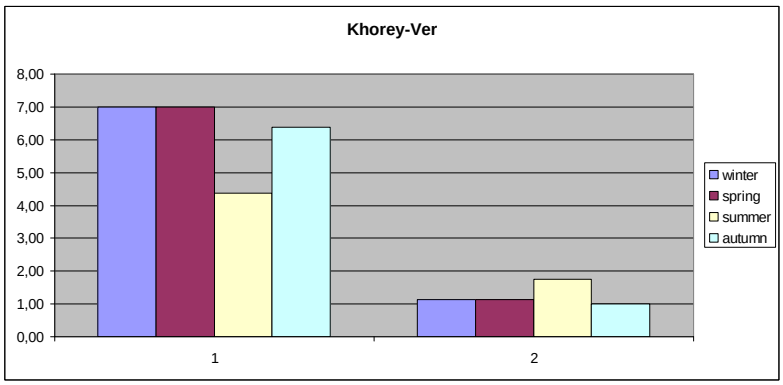
Indiga: reindeer meat more than 3 times, fish less than 3 times except in autumn.



Nelmin Nos: reindeer meat about 4 times a week in winter, in other seasons less than 2 times a week; fish 2 times winter and autumn, at least once in spring and summer.



Krasnoe: reindeer meat 5-6 times weekly, fish 4-5 times a week



Khorey-Ver: reindeer meat 4-7 times weekly; fish 1-2 times weekly

Karatayka: the interviewed reindeer herder stated that they eat reindeer meat approximately 5-6 times a week; fish 2-3 times a week.

The contribution of traditional foodstuffs to the diet of the respondents from Indiga and Nelmin Nos is generally is very low compared to the other villages. The respondents stated that specific share of traditional products in their diet is over 60% (see 1.4.3.2.), while their income level is rather low (30 – 50 thousand RUR per capita annually). They can afford to buy cannot afford to buy much food in the shop.

1.4.3.5. General assessment of the importance of traditional subsistence activities among indigenous people in the NAO

The results of the questionnaire and test analyses have shown that products of TEA, according to the respondents, accounts for 61 - 83% in their diet, and TEA as such make up for 65 - 100% of the occupation rate of working respondents[50].

The main activity is reindeer husbandry. The annual income from reindeer meat for sale varies with more or less successful sellers from 200 to 600 000 RUR.

Respondents who are involved in fishing, hunting and gathering, but not in reindeer husbandry, obtain less income in the form of wages paid by the SPK and children's or unemployment benefits (30 – 50 000 RUR per capita annually).

Reindeer herders with a high income stated that they spend about 30% of it on foodstuffs from the shop (bread, cereals, vegetables, pasta, butter, sugar, tea), while respondents from Nelmin Nos, Indiga and Kolguev with annual incomes of 30-50 000 RUR spend up to 90% of their income on food.

It should be noted that respondents seemed to have generally underestimated the contribution of traditional foodstuffs – and their monetary value - they consume.

Responses to the questionnaire show that 50 - 250 kg (150 kg on average) of reindeer meat is consumed per person annually. The daily amount of fish consumed is up to 1 kg – about 200 kg a year – if consumed 2-7 times a week, depending on the season. On the average, a person annually consumes 10 litres of gathered berries. Seasonally, people consume eggs

[50] without data for Kolguev, where the selection included only two active reindeer herders, six retired reindeer herders, four experts, one representative of the administration and one unemployed person

and wild birds' meat (the average of 10 geese per family, 2 birds per person).

On the basis of shop prices in the NAO, the market value of TEA products consumed by one person annually amounts to:

Reindeer meat: 250 RUR per kg on average; special parts of the carcass: 500 RUR. The cost of 150 kg of meat is 37,500 RUR;

Fish: 100-150 RUR per kg on average. The cost of 200 kg of fish is 25,000 RUR;

Berries: 100 RUR per kg. The cost of 10 litres is 1000 RUR;

Wild bird meat: goose 250 - 500 RUR; the cost of 2 geese is about 750 RUR.

Thus, the cost of products from traditional kinds of activities amounts to 65,000 RUR per person annually, without reindeer delicacies, expensive fish species (salmon) and wild birds eggs.

We did not take into account other reindeer husbandry products that are used by the respondents, like reindeer hides for making clothes, shoes, tent covers and bedding.

Respondents with low incomes (from Nelmin Nos, Indiga and Bugrino), who stated that traditional products make up 50% of their diet, underestimated their real (current market) value.

According to our data, traditional food products contributed 61 - 83% of a family's diet. Indigenous people are therefore highly dependent on foodstuffs obtained through traditional subsistence activities. This, in turn, indicates the high degree of indigenous people's vulnerability in the event of the failure of their traditional sources of subsistence. They are vulnerable to degraded pastures, hunting and fishing areas, and territories for gathering wild plants due to industrial development on the land.

Analysis of the questionnaires has also shown that, in addition to a continued high degree of dependence on traditional subsistence activities, other aspects of the respondents' indigenous culture and society are preserved. These include the exchange and sharing of traditional foodstuffs (e.g., berries, fish, reindeer meat) among kin, the use of marine mammal skins for making harnesses and working clothes and for feeding dogs, and the exchange of marine mammal skins and fish for reindeer meat.

Furthermore, two-thirds of the respondents have preserved knowledge of the locations of sacred places, and fear that they may be destroyed.

1.4.3.6. Special analysis of the situation in Nelmin Nos

Analysis of the interviews of Nelmin Nos villagers shows that the contribition of traditional foodstuffs to their diet is very low. Food products from traditional types of activities also appear to have a minor role in people's activities.

As to the weekly consumption of reindeer meat and fish – the main traditional sources of fat and protein - by Nelmin Nos respondents, the values also appear to be very low. Respondents from Nelmin Nos consume venison about four times a week in winter, less than twice a week in other seasons. They consume fish twice weekly in winter and autumn and less than once a week in spring and summer. At the same time, the respondents from Nelmin Nos have a low average income (30 - 50 000 RUR per person annually), which makes it impossible for them to buy meat and fish products in the shop. According to them, they can only afford to buy the essentials (bread, cereals, potato, pasta, butter, sugar, tea).

All factors indicate that the diet of Nelmin Nos respondents is nutritionally inadequate. For the purpose of analysing the contribution of traditional products the diet, the people interviewed appear to be representative in terms of their social structure. Eleven out of 20 respondents from Nelmin Nos are active reindeer herders, two are retired reindeer herders, one is a fisherman, three are unemployed and three are employed in the village infrastructure.

A discussion of the results shown in section 1.4.3. with project participants, who collected the interview data and are active members of the Association of Nenets People Yasavey, and with native residents of the villages they were working in, indicated that the features of traditional nature management and the role of traditional subsistence activities in people's diet as revealed by the interviews is accurate. But no explanation was found for the specific character of factors relating to Nelmin Nos.

There were few data given by Nelmin Nos people on the effect of industrial projects on the traditional use of natural resources. Filip Taybarey, the interviewer, did not ask the respondents questions from the relevant sections of the questionnaire as he thought that as long as no oil-related activities occur within SPK im. Vyucheyskogo's territory, this would be unnecessary. The data from Nelmin Nos are derived from answers to questions in the sections concerning reindeer husbandry, hunting and fishing.

To obtain a better understanding of the situation in Nelmin Nos, two additional respondents from this area were interviewed. Born there (in 1937 and 1945) and occupying leading positions during the 1970-1990s in the village administration (heads of reindeer herding farms, rural councils and other socially important organisations in Nelmin Nos), both are familiar with the last 60 years of village history. These respondents, both females (born 1937 and 1945), are hereafter referred to as informants (not in the list, Box 11), have related that *Nelmin Nos was founded in 1938 as a central base for the collective farm Vyucheyskiy.*

However, the place for the village was unsuccessfully chosen – on the swampy left shore left shore of the Tundrovy Shar[51]*, which made it problematic for the villagers to get drinking water and caused problems with house constructions due to a high ground water level. In 1952, they moved the people and their houses from the reindeer herders' settlement Tri Bugri (Nyakhar Pugra, is translated from the Nenets 'three huts') to Nelmin Nos. This was done in the framework of the general policy of 'collective farms' consolidation.* The informants, as well as other respondents, descendants of Tri Bugri people, have informed us that the *Tri Bugri settlement was located on an elevated, dry place close to the fishing lake Kirizeika. The only remnant of the settlement today is the cross. The cemetery in Tri Bugri was destroyed for the purpose of establishing a shift camp for seismologists in its place 20-25 years ago.*[52]

As of 2005, there were 1025 people (282 households) living in Nelmin Nos, out of which 953 are Nenets.

Reindeer husbandry has deteriorated during the last 30 years. While in 1979 the herds of the Vyucheyskiy farm numbered 12 000 reindeer, remaining at this level until 1998, by 2001, when the SPK im. Vyucheysikogo was restructured into a new collective farm, livestock had decreased by half (down to 6500 reindeer). Now (2009) it amounts to only 600 reindeer. The six reindeer herding obshchinas, which diverged from SPK im. Vyucheyskogo – Ilebts, Neruta, Tabseda, Opseda, Vark, Vynder and Senga – have in total 3600 reindeer. This means that within the whole area of the former Vyucheyskiy collective farm a little more than 4000 reindeer now graze – a third of the amount of 10 years ago.

Analysis of the interviews indicates that several factors account for the decrease in reindeer numbers.

Since 2000, reindeer husbandry no longer receives state support - reindeer herders were formerly provided with foodstuffs, radio communication, transport and veterinary services - and taxation rates in this sphere have increased dramatically.

According to the respondents, SPK im. Vyucheyskogo has also suffered from its proximity to Naryan-Mar (60 km away), and easy access by outsiders to its lands (in summer by river passenger boats, and in winter by motor vehicles). *Oil people who are working in shifts (15 days work and 15 days off-duty) and living in Naryan-Mar and Iskately, according to the respondents, hunt, fish or gather in the area of the former Vyucheysky collective farm. They also use motor vehicles, quick-firing guns and fast and effective fishing techniques that the Nenets do not employ. The respondents related frequent cases of outsiders shooting both wild and domestic reindeer, and using alcohol to persuade reindeer herders and fishermen to sell them their fish and reindeer meat cheaply. Responding reindeer herders noted that they had to change routes to avoid approaching the village and river, as 'unscrupulous people could approach them by motor boats and shoot reindeer' (respondents NN-03, NN-06).*

According to the respondents, oil-related activities resulted in deterioration of pastures, hunting and fishing lands and berry fields. Other problems mentioned by the respondents were the pollution of the Pechora River, unemployment, substandard and insufficient housing and alcohol abuse, as well as packs of stray dogs.

It can be concluded from the narratives obtained from the informants from Nelmin Nos that even without the presence of oil producing facilities within the reindeer-breeding area, the industry has had indirect negative impacts on the traditional use of natural resources. People employed in the oil industry exploit without restraint lands and resources – such as reindeer, wild animals, fish and berries - that Nelmin Nos residents depend upon for their livelihoods. Existing bans on the use of traditional resources by employees of oil companies, even in places where such bans are to be applied, are not observed. Some representatives of indigenous people do realise the threat, and respondents from the areas with no oil production in progress (Kanin Peninsula, Indiga) fear that industrial projects may bring harm to their land.

[51] A channel of the Pechora's braided river system.

[52] Comment by T. Tuisku, 2009: "Tri Bugri has now became somehow "a good past", but in the 1950s there were only a few houses. The place would now partly be similar to Nelmin Nos if the settlement still would exist. On the bank you can build on hard soil, but further inland there is bog. Of course, Tri Bugri is much more beautiful and people love to make trips there."

1.4.4. Attitude of oil companies towards indigenous peoples

Companies formally comply with the requirements of public discussions and agreements on their project activities with indigenous communities. At the same time, as the examples cited below show, there is no fixed procedure for these discussions. Such procedures should aim at satisfying the indigenous peoples' requests to minimize negative impacts and to participate to some extent in monitoring the compliance of industrial projects with agreements regarding the protection of their environment and traditional lands.

1.4.4.1. Responses from Krasnoe (15 respondents), Khorey-Ver (8 respondents) and Bugrino (14 respondents):

Question	Answer	Krasnoe	Khorey-Ver	Bugrino
Do the industrial companies discuss their projects with local residents before they start to work?	yes	10	5	1
	only with our bosses	2	1	4
	don't know	1	2	7
	no	2	0	1
	no answer	0	1	1
On these discussion meetings, did they ask your opinion or only told about their plans?	yes	10	4	1
	don't now	0	0	2
	no	3	0	9
	no answer	2	4	2
If you gave advice, did they take it into consideration?	yes	2	4	
	partly	3	0	1
	no	8	0	3
	no answer	2	4	9

1.4.4.2. Responses from Bugrino, Kolguev Island:

10.3. Do industrial companies discuss their projects with local residents before they start to work?

- Long ago a manager came from Peshchanka Rigs. He made a speech in the club, said we were brothers, we could build a school and lay a gas pipeline to the settlement. They made poles for the school building, but now it's rotten. Now nobody comes to discuss anything.

- They used to gather us in the settlement in Soviet times. Now it's all over. They didn't do what they promised. The school was supposed to be built by 1992 but they didn't go farther than constructing the poles for it ….

- They promised to build a school here. They lied. The poles are still there, getting rotten.

- I took part in discussions. If they need land, we always know about it. However there were a few cases when land had been given without out prior consent. They develop documentation and were here to discuss it. In the process of discussion we are giving them land under certain terms and conditions to observe our requirements. And register them on paper. They are considering our requirements. I have only started working here recently. But I think it's easier now with them. Before they could ignore the state farm's opinion, but not now. Now they are always asking the cooperative's opinion.

- They used to, when I was working. The director agreed on things with us …. If we said no, the director could tell them that reindeer herders did not approve. I don't know how it is these days. The new woman director makes agreements and reindeer herders may not know about them, while drillers go deeper into the island. They have recently mounted a new rig and reindeer herders don't even know who gave them permission ….

- It depends. Last time they sent us a paper to be signed for a drilling rig construction, but the rig was already there. Naryan-Mar says 'yes' to them and we seem to be the last to sign the paper. If we don't sign, we won't get anything.

Conclusion: It is obvious from the answers that conditions vary from place to place. While respondents from Krasnoe and Khorey-Ver generally said that they are consulted, opinions differed about the extent to which their advice is taken into consideration. Respondents from Bugrino were free-speaking and – if they answered the questions – mostly com-

plained about broken promises, about not being consulted at all, or about having no choice than to sign pre-fabricated agreements. The leadership of the cooperative (B-09) seemed to be informed, while the reindeer herders themselves are not involved in the process anymore.

1.4.5. Effects of oil- and gas-related activities on traditional modes of livelihood

Our selection includes the respondents from three regions that have experienced industrial development: Kolguev Island (vilage of Bugrino), the territory of SPKs Kharp and Erv (village of Krasnoe), and SPK Put Ilicha (village of Khorey-Ver).

Explanation:

Red colour: negative influence
Blue colour: positive influence

1.4.5.1. Respondents from Krasnoe (15 questionnaires):

All 15 respondents from Krasnoe noted the negative effect of oil production on traditional nature management. At the same time, some of them noted that their living conditions have improved (construction of houses, roads, assistance for transportation).

"How did oil production affect the tundra in terms of …"

	Become worse	Improved	Remains the same	No answer
Reindeer husbandry	14			1
Hunting	9			6
Marine mammal hunting	2			13
Fishing	14			1
Gathering	12			3
Living conditions	1	13		1

"How did oil production affect the tundra in terms of …"

	Become worse	Improved	Remains the same	No answer
Pastures	15			0
Hunting areas	7			7
Marine mammals' resting places	1			14
Fishing	14			1
Berry fields	12			3

Examples of responses

2.8. Have you changed your fishing-ground during the last 10 years and why?

- Yes, because they built bases and polluted the environment.

2.9. Are there any industrial structures which have had an effect on fishing during the last ten years? In what way?

- They once threw a tractor into the Khalmerka.
- There are no fish in Foma-Ty and Chira-Ty anymore.
- There are no fish in Foma-Ty and Chira-Ta lakes anymore. There used to be drilling rigs there. Now there are none.
- Lakes are covered with diesel oil. In Chira-ty the fish smells of oil. There were oil rigs here earlier… the entire area around the pipelines is destroyed because of heavy vehicle traffic… they leave a lot of iron refuse behind…
- Yes, fish has a smell of diesel oil. Chira-Ta and Foma-Ty lakes are totally polluted.
- Yes. There is a pipeline and a high-voltage line over passages near the quarry at Yarey-Yu.
- Fishing is affected by environmental pollution, they have drained Yara- ta Lake.

2.14. Have the quantity and species of fish changed in the last ten years?

- Yes. Because oil people pollute lakes.
- This is connected with lake pollution, fish has a smell of diesel oil. Oil people ruined lakes.

- There is less fish, lake pollution and fish capture by poachers.
- Yes, there is less fish now. This has been an environmental effect.

2.21. Have you or members of your family have had any diseases, indigestion or other ailments which, in your opinion, are connected with contamination of drinking water?
- The water in Khalmerka Lake is bad.

4.8. Are there any industrial structures which have had an effect on gathering wild growing plants over last the ten years?
- Yes
- Yes, cloudberries do not grow in places where the pipeline is laid.
- Yes, the soil within the pipeline construction route is badly damaged by tractors.
- The smoke from drilling rigs, pipelines (the berry fields are degraded).
- Cloudberry is mottled alongside a pipeline and a high-voltage line, and there is much less now.
- There is no cloudberry at Toboy anymore, because of drilling rigs and environmental pollution.

4.9. Have the quantity or species of plants changed during the last ten years? If so, what kind of changes have you observed? What do you think is the cause?
- Cloudberry was mottled because of oil extraction at Toravey.

6.7. Have you had to change the annual route during the last ten years? Why?
- No, as long as there are no free (unoccupied) pastures.
- Yes, in connection with a pipeline and a base construction at Yarey-Yu.

6.8. Are there any industrial structures that have had an effect on reindeer husbandry during the last ten years?
- Pipeline
- Drilling rigs at Yarey-Yu, base Khilchuyu, high-voltage line right over the passage.
- Pipeline construction. When they were exploring the oil, drilling rigs were all over tundra and there were piles of scrap metal left from them.
- They have just started the construction of a pipeline. Our route lies nearby. Nothing has changed so far.
- Yes, they have a negative effect, they pollute the environment, pastures, so that we have to change a route.
- The pipeline has had three spills (editor's note: at Varandey). We lack pastures, so we have to wander the same route.
- Irregular passages, passages.

6.9. Have there been any drastic changes in the size of your herd during the last ten years?
K-08:- *The herd has decreased in number – we lack pastures, reindeer get sick.*

8.6. Are there any industrial structures that have had an effect on access to sacred places or have caused their destruction during the last ten years?
- When the first drilling rigs appeared, all the idols were scattered on Khurtova mound.
- Khurtove-Seda is a place for sacrificial offerings where they used to sacrifice a reindeer every year. There is a high-voltage line now there and a pipeline.
- There was a drilling site close to sacred Siv-Nava nipple. An off-roader drove over Siv-Nava nipple.
- Geologists went through Siv-nava sed in the 1970s. A base of seismologists is situated there now.

10.1. How do you estimate the influence of activities of industrial enterprises, located on the tundra, on your life?
- They facilitate construction of housing.
- They contaminate pastures.
- They have negative effect.
- They pollute pastures.
- They pollute pastures.
- They contaminate and decrease the number of pastures. They block routes for reindeer to pass.
- Negative
- It has a negative effect- they pollute pastures.
- No effect
- It has a negative effect . They pollute the environment and pasture.

10.5. During these discussion meetings, did they ask for your opinion or were you only told about their plans?
- They told about their plans, asked about passages.

10.5.1. If you gave advice, did they consider it?
- We did, but they did not consider it. The passages are very low.
- No, they didn`t consider it.

10.8. Do you think it is better to live on the tundra or to leave it after the oil companies started their activities?
- It is easier with them, but they pollute the tundra.
- It`s become better to live, but we feel pity for nature, reindeer, animals.
- Nothing has changed.

- It has become more complicated, they pollute our pastures.
- Of course, it has become worse, they pollute our pastures.
- No, we don`t need them on the tundra.

11.1. Do you think the conditions of your settlement, traditional areas and livelihood of your family have improved or worsened?

- It has become worse. There is soil degradation, a lack of pastures.
- It has improved. They have begun to build houses.
- It has improved. They began to build houses, repaired the road.

1.4.5.2. Respondents from Kolguev (14 questionnaires):

Nine respondents mentioned a negative effect of oil production development. The respondents from the west coast (the first herd) and from the east coast (the second herd, the place, where the oil rigs are situated) have a a different impression of the oil people. Most of the respondents are from Bugrino. The answer "remains the same" has a protesting character. It tells about deceived expectations.

"How did oil production affect the tundra in terms of …"

	Become worse	Improved	Remains the same	No answer
Reindeer husbandry	3		3	8
Hunting	1		8	5
Marine mammal hunting			1	13
Fishing	2		4	8
Gathering	1		11	2
Living conditions	3	1	8	2

"How did oil production affect the tundra in terms of …"

	Become worse	Improved	Remains the same	No answer
Pastures	3		3	8
Hunting areas	1		8	5
Marine mammals' resting places			1	13
Fishing	2		4	8
Berry fields	1		11	2

Examples of responses

2.2. Do you remember in which area your ancestors fished?

- My mother used to fish alewife at Peshchanka Lake. There are no fish there anymore for obvious reasons. Everything is polluted.

2.9. Are there any industrial structures that have had an effect on fishing during last ten years? In what way?

- I can tell only about Punochnoe Lake. Seismologists stayed there. Carbon cables were coming out of the lake, they probably used current to baffle fish. This was about 18-20 years ago.

2.21. Have you or members of your family have had any diseases, indigestion or other ailments which, in your opinion, are connected with contamination of drinking water?

- Yes, such things have happened. It`s because of the banks, where barrels and other waste are scattered about.

3.1. Do you hunt marine mammals?

- Not me, my sons used to hunt, but there haven`t been any marine mammals recently.

4.8. Are there any industrial structures that have had an effect on gathering during the last ten years? In what way?

- Yes, of course, they have a great influence. There was a drilling rig at the river Izbushechnaya from the period of 1988 up to 1989, approximately 1.5

years. It is a dead area now, nothing is growing there.

- Industrial structures are far from us, if there is cloudberry, we gather it.

5.5. Have you had to change your hunting areas during last ten years? Why?

- Yes, I used to hunt over the river Bugryanka, there used to be a lot of geese there. Their number decreased during the last 3 years. I had to change the place and left that one.

5.6. Are there any industrial structures that have had an effect on hunting during the last ten years?

- They have a major influence.

- They don`t interfere with us, there aren`t such structures.

5.7. Has the frequency or species of hunted animals changed during the last ten years?

- It has changed (it is connected with the drilling activity). There are a lot of brant geese, they destroy the pastures. We need to reduce the brant population.

6.2. Were your ancestors reindeer herders, and if so, where?

- Now at the place where I used to work (in the area of the second herd) pastures are polluted by the drilling people.

6.7. Have you had to change the annual route during the last 10 years? Why?

- We had to, the oil company occupied the territory and we had to abandon the spring camp. We left there.

6.8. Are there any industrial structures that have had an effect on reindeer husbandry during the last ten years?

- There used to be drilling people, but they were all driven out. Nothing stirs now.

- There are drilling rigs everywhere, of course, they impede reindeer herders.

- It has changed dramatically during the last 10 years, especially in the eastern part. Reindeer have nothing to eat, oil rigs penetrate deep into the island. They have a great influence, the lichen is different. There is smoke, roads are everywhere. Before the drilling rigs came the reindeer kept to this eastern area.

- We`ve left from there. There are roads and a pipeline. Reindeer go there. There were reindeer of the 2nd brigade there, they began to die because of poisoning.

- There is some influence, in the east.

6.9 . Have there been any drastic changes in the size of your herd during the last ten years?

- Reindeer have become smaller during the last ten years. They used to be larger, probably, this is because of the oil rigs.

- It has changed, most likely because of the lack of pastures. There are a lot of sick animals in summer - these are internal illnesses, for example, lung diseases.

8.1. Are special places of the following kinds known to you within the areas of your traditional activity?

- (indicates a place on the western shore of lake Peshchanoe) *It used to be at Peshchane sopki, but it is all turned inside out by drilling people now.*

- There are a lot of nomadic camps. There was a chapel at the river Peshchanka. There is only a trace left of it now.

8.6. Are there any industrial structures that have had an effect on access to sacred places or have caused their destruction during the last ten years?

- There are oil rigs alongside the river Peshchanka, they say it`s very close to the beams.

- Oil rigs in the east.

8.7. Do you know if and when these places were exposed to destruction or defilement? Who did it? Your people or somebody else? Were there any consequences of these destructions and defilements?

- The second bog place. There is an oil rig there right now. There used to be ancient things there: gods, tambourines, the hat of a shaman.

10.1. How do you estimate the influence of activities of industrial enterprises, located on the tundra, on your life?

- It has a negative effect. The drilling people harmed the soil.

- It has a negative effect. Reindeer herders probably suffer. We don`t, as we don`t have them in the settlement.

- It doesn`t influence me.

- It has a positive effect.

- The expedition is far from us.

- It does not influence in any way.

- They are not in our way.

10.3. Do the industrial companies discuss their projects with local residents before they start to work?

- Not now, there used to be drilling people in whole tundra, we have driven all of them out, because they impeded the reindeer.

- When I worked in the SPK, approximately two years ago, there was a meeting about whether to give the land to the expedition. The meeting was

in the office of the SPK, only sovkhoz employees were present. They didn`t come themselves, they only sent a paper where we put our signatures whether we agreed or not.

- No, there used to be turbulent meetings about giving the land for drilling derricks, but they were over soon. They probably discuss something with the SPK.

- Long ago a manager came from Peshchanka Rigs. He made a speech in the club, said we were brothers, we could build a school and lay a gas pipeline to the settlement. They really made polling for the school building, but now it's rotten. Now nobody comes to discuss anything.

- It depends. Last time they sent us a paper to be signed for a drilling rig construction, but the rig was already there. Naryan-Mar says 'yes' to them and we seem to be the last to sign the paper. If we don't sign, we won't get anything.

- No, there used to be turbulent meetings about giving the land for drill derricks, but they were over soon. They probably discuss something with the SPK.

10.4. Please tell about which industrial activities you have been informed in advance when you participated in such discussions during the last five years?

- I didn`t participate on my own, it was probaby on behalf of a sovkhoz.

10.5. During these discussion meetings, did they ask for your opinion or were you only told about their plans?

- They promised to build a school here, but it didn`t work out. They deceived us. Poles have been standing there since then. They have already begun falling, so many years have passed.

10.7. Which attitudes have developed between local people and workers of the industrial enterprises?

- My son, and not only him, worked as a jobber in the expedition at Peshchanka. It turned out that it was unprofitable to have them. If we work for them, they`ll have to fix this first.

10.8. Do you think it is better to live on the tundra or to leave it after the oil companies started their activities?

- I can`t say, it used to be better without them.

- You should ask the reindeer herders.

- We don`t get anything from them, it remains all the same.

- We don`t feel anything, reindeer herders probably suffer.

- I don`t know, I don`t live with them.

- We, for example, don`t feel anything in the settlement; reindeer herders probably, do.

- I don`t know.

1.4.5.3. Respondent from Karatayka (1 questionnaire):

5.6. Are there any industrial structures that have had an effect on hunting during the last ten years?

- Much "iron" is scattered in the area of Saremboy.

10.1. How do you estimate the influence of activities of industrial enterprises, located on the tundra, on your life?

- It doesn`t influence in any way yet.

10.3. Do the industrial companies discuss their projects with local residents before they start to work?

- No.

10.8. Do you think it is better to live on the tundra or to leave it after the oil companies started their activities?

- Not, there are only negative effects.

1.4.5.4. Respondents from Khorey-Ver (8 questionnaires):

"How did oil production affect the tundra in terms of …"

	Become worse	Improved	Remains the same	No answer
Reindeer husbandry	2	2	3	1
Hunting	1		3	4
Marine mammal hunting				8
Fishing	2		1	5
Gathering	4		1	3
Living conditions		7	1	

"How did oil production affect tundra in terms of…"

	Become worse	Improved	Remains the same	No answer
Pastures	3		5	0
Hunting Areas	2			6
Marine mammals' resting places				8
Fishing	2		2	4
Berry fields	3		2	3

Examples of responses

6.6. Specify places of nomadic movements and seasonal settlements, reindeer calving and slaughtering.

- *I won`t show the route.*

6.8. Are there any industrial structures that have had an effect on reindeer husbandry in last ten years?

- *We don`t have any structures along our route.*
- *It doesn`t influence in any way, nothing prevents work. The livestock has increased. We treat diseases at early stages.*

6.9. Have there been any drastic changes in the size of your herd during the last 10 years? How? What do you think this is owing to?

- *No, I most likely see improvement and increase of the livestock, because diseases can be coped with. There are modern methods of treatment of reindeer diseases.*

10.1. How do you estimate the influence of activities of industrial enterprises, located on the tundra, on your life?

- *It doesn`t influence in any way.*
- *They most likely pollute pastures.*
- *They pay compensation.*
- *Negatively, they pollute pastures.*

10.8. Do you think it is better to live on the tundra or to leave it after the oil companies started their activities?

- *It has become easier.*
- *It`s better.*

11.1. Do you think the conditions of your settlement, traditional areas and livelihood of your family have improved or worsened during the last 20 years?

- *They have become worse. It depends on the person.*

1.4.5.5. Comments to the answers of respondents from Khorey-Ver

Less than half of the respondents from Khorey-Ver perceive a negative influence of oil production on conditions of traditional activities. Furthermore, most of them think that the oil companies have improved their living conditions and even the conditions for reindeer husbandry. The oil development opened up opportunities for new foodstuff, for the use of helicopters for transportation of family members of reindeer herders to the centre, and hopes for compensation in this remote area.

Today respondents from Khorey-Ver are successful reindeer herders, enjoying high incomes. They are confident and were not interested in questions about the state of the environment. When answering the questions, they seemed not to pay attention to the content of the question "How do you estimate the influence of activities of industrial enterprises, located on the tundra, on your life?". That is why the estimation of the successfulness of reindeer husbandry in the brigades due to, for instance, a well-organised veterinary service, was taken as a merit of the oil industry.

The crucial role of traditional nature management in the subsistence of reindeer herders in Khorey-Ver suggests that negative impacts by industry on pastures will have dramatic effects on the welfare of the area's indigenous residents.

1.4.5.6. Respondents from Nelmin Nos (20 questionnaires)

Information about the influence of industrial activities was not investigated via the questionnaire because the interviewer understood that there is no oil production in the territory of SPK im. Vyucheysky.

However, responses to the questionnaires reveal that many respondents mention an inconvenient geographical position and bogging as a problem of the settlement Nelmin Nos. Almost all the respondents recall the settlement Tri Bugri, closed in 1952, that

ceased to exist during agglomeration of collective farms during the Soviet period (only one cross has remained). *They tell that the settlement Tri Bugri was situated at a high elevation. The fish lake Kirizeika lies opposite to it. The cemetery was destroyed in connection with the construction of a camp of seismologists 20-25 years ago*. Even younger respondents know about this settlement from frequent stories of elders.[52]

They also mention water pollution in the Pechora River, unemployment, lack of accommodation, high alcohol consumption, and a big number of homeless dogs as problematic issues in their village.

Reindeer herder: *- Yes, we had to change the route, because we were close to the settlement. We used to go alongside Korovinskaya Guba up to Makino from April. Then we went up to the summer road. - There is less reindeer (unfair people coming by boats in summer time shot at reindeer)*

Reindeer herder: *- The quantity of reindeer has decreased. This is caused by reindeer diseases, weather conditions and a human factor. Homeless dogs also cause problems.*

1.4.5.7. Respondents from Indiga (16 questionnaires)

Fourteen respondents out of 16 were concerned about the prospect of industrial development of the territory. In reality, there are no oil or gas deposits expected to occur on the territory of the Indiga reindeer herders, although an oil terminal is planned close to the village, with a pipeline connection from the east.

Examples of responses

10.1. How do you estimate the influence of activities of industrial enterprises, located on the tundra, on your life?

- They will destroy the tundra.

- If they begin to develop something here, there will be only negative influence.

- Nothing good will come of it if they carry out these activities.

- So far we don`t have oil people here and there is no exploration, besides the construction of a bulk-oil terminal, which is likely to being frozen now. But if they start something here, the environment will be polluted.

- There isn`t anything now, but they began building a terminal at Svyatoy Nos. It turns out that a pipeline will be laid through the territory, where we pasture reindeer, and this is bad …

- We don`t have anything here so far (besides the started terminal). Thank God … And in the event there is something, nothing good will come of it.

- It has negative influence, they will replace traditional activities.

- They have begun building a bulk-oil terminal not far from the village (at Svyatoy Nos), but there is no movement now. We have not felt any effect yet. Thank God.

- Nothing good is going to come out of this …

- There is nothing like this here, besides the started construction of the terminal. And in the event something appears, nothing good will come of it.

- It has negative influence.

10.3.1.Who informs you about the results of these discussions?

- We learn about them from newspapers, as nobody has meetings and discussions with us.

10.4. Please tell about which industrial activities you have been informed in advance when you participated in such discussions during the last five years?

- No, nobody has informed me.

11.10. What threats to the existence of your settlement can you see in the future?

- Young people will go away. If they begin oil exploration here, they will pollute nature.

- Field development, that is pollution of nature.

1.4.5.8. Respondents from Kanin Peninsula (29 questionnaies)

Information about the influence of industrial structures was not collected during 18 interviews. Interviewer Nyurov thought there was no necessity, because there is no oil production on the peninsula.

Interviewer Kostamo, who questioned 11 respondents, asked questions about environmental threats. Some responses are listed below.

Examples of responses

2.14. Have quantity and species of fish changed in the last ten years? If so, what kind of changes you have observed? What do you think this is connected with?

- There is less fish, because of the environment.

5.1. What kinds of wild (land) animals do you hunt?

- Moose, geese. There are less wild animals.

- Geese, wild reindeer. Wild reindeer and moose have practically disappeared. This is connected with the appearance of technology and poaching.

6.9. Have there been any drastic changes in the size of your herd during the last ten years? How? What do you think this is owing to?

- There are less reindeer now. Food disappears. Problems appear in spring. Poaching.

11.1. Do you think the conditions of your settlement, traditional areas and livelihood of your family have improved or worsened during the last …

… 20 years? Why? What has changed?

- Environment, that is why we have worse living conditions and food.

… 10 years? Why? What has changed?

- There is a problem with reindeer food. There are impacts from the military range.

- Reindeer have become smaller. Food has disappeared.

11.10. What threats to the existence of your settlement can you see in the future?

- Lichen (reindeer food) will be disappearing.

- Oil rigs. We are categorically against the activity of the launching site "Plesetsk".

- The environmental situation will become worse.

- Disappearance of lichen (reindeer food).

- Lichen (reindeer food) will be disappearing. Poaching will occur.

- The construction of oil rigs.

- Lichen will be disappearing.

11.11. Can the population of your settlement be prepared for this threat and prevent it, or not?

- We can protest against the construction of rigs, we are against soil degradation.

- Reindeer will disappear.

1.4.5.9. Discussion of responses to the questions about the effect of industrial structures on traditional nature management

The common opinion of all respondents, when answering the question "*Do you think your and your family members' work support your life completely?"* was: "*Everything depends on ourselves"*. When answering the question "*What other sources apart from yourself and your family contribute to the support of your family and your settlement?"* they often did not answer, or answered: *"From the head of the SPK", "from the authorities of the NAO".* When answering the questions about what the villagers do and can do to prevent threats and solve problems (questions 11.6.-11.9., 11.11), they usually avoided giving an answer, or answered: *"nothing", "we should work better".*

These opinions show, on the one hand, the self-sufficiency of indigenous people who maintain a traditional way of life. On the other hand, they indicate a high degree of isolation from the rest of the society.

The majority of the respondents, who answered the questions "*What threats to the existence of your settlement can you see in the future?", "What kind of changes have you observed … (concerning fishing, hunting, gathering)?",* named ecological threats like the degradation of pastures, water quality and berry fields and the reduction of wild animal stocks, connected with the appearance of modern technology and oil production. In addition, they refered to threats like poaching and the many homeless dogs that are left by newcomers. Feral dogs chase domestic and wild reindeer.

Respondents mark unemployment, alcoholism and distant educational facilities as the main problems in such settlements as Bugrino (Kolguev Island), Indiga and Nelmin Nos, where traditional subsistence activities are not engaged in to the extent they once were. Respondents from the settlement Krasnoe, whose traditional lands have mostly been affected by the development of oil production, mark its negative influence on all kinds of traditional nature management. Respondents from the settlement Krasnoe are very conscious about the importance of their participation in decisions about the use of traditional lands, completing agreements with companies on minimising the impact and compensating damage. To maintain the level of their welfare, they also take advantage of the proximity of their settlement to the main

market of traditional products in Naryan-Mar. They are active traders.

Respondents from the Kanin Peninsula and the vilage of Nelmin Nos, where there is no oil production, and from the settlement Khorey-Ver, where it has only begun, are less interested in ecological problems and losses for traditional nature management, which are determined by industrial development.

These losses have already been realised by the respondents from Kolguev Island and Krasnoe. Respondents from Indiga are aware of these losses. They are underestimated by respondents from the settlements of Kanin Peninsula, Nelmin Nos and Khorey-Ver. At the same time, the importance of traditional nature management in the subsistence of reindeer herders from Khorey-Ver shows that negative impacts by industrial developments on pastures will have dramatic effects, as the indigenous residents are completely dependent on their reindeer herds. Today respondents from Khorey-Ver do not see no other way of supporting themselves.

Khorey-Ver was considered important for the project because the major facilities of the Kharyaga oilfield and adjacent fields, including a major pipeline system, divide the winter pastures of the reindeer herding cooperative SPK Put Ilicha into two.

Data from Khorey-Ver may be a little controversial. At first, Yasavey did not succeed in finding a person who would be willing to interview people in the village. Finally, the interviewer from Krasnoe was sent to Khorey-Ver to gather at least some information. The result was only eight interviews. In contrast to the other villages, the interviews in Khorey-Ver were thus not done by a co-villager. Respondents said generally that no industrial structures were in the vicinity of their migration routes and that they had not suffered any negative impacts. One respondent said there were constructions, but they don't interfere with reindeer husbandry. When looking at the map of oil development in the area (Maps A-5, B-3), it is hard to believe that this is representative or generally true. There is no obvious reason to believe that the problems reported from Kolguev and Krasnoe do not occur in the southern and eastern Bolshezemelskaya Tundra. In fact, it seems that reindeer herders have ceased using their pastures on the southwestern side of the Kharyaga pipeline, and herds are concentrated to the east of it in winter.

The opinion of respondents from different settlements about environmental problems is based on their own experiences. So the experience of the citizens of Krasnoe did not influence the views of the residents of Khorey-Ver regarding a potential effect of oil production on their traditional lands. They still see only the positive side of the prospects for oil production (compensation, etc.).

Reindeer herders of the cooperatives Kharp and Erv (Krasnoe) use the pastures between the Pechora River and the Varandey area and have to deal with the oil fields at Yuzhno-Khylchuyu and Varandey, including the new pipeline between these areas. Not all complain, but most of them have noticed one or more negative affects, mostly in connection with the pipelines and smoke from the oil rigs. Some complain about killing of their domestic reindeer by poachers[53] and illegal fishing by non-indigenous people. These consequences of oil activities were repeatedly mentioned: the pollution of lakes and rivers, the reduction in size and quality of fish, sickness among reindeer and insufficient pasture lands and fewer berries.

When answering questions in section 11 of the questionnaire, regarding changes of living conditions and the future, almost all respondents said that they do not see their individual participation in a future arrangement. They did not show a determination to change of their subsistence pattern or look for alternative ways of supporting themselves.

At the same time, their responses to the questionnaire made clear their high level of dependency on traditional subsistence activities. This indicates that if these activities are negatively affected it will have serious consequences on the welfare of the indigenous people.

[53] According to T. Tuisku (pers. comm. 2009) poaching was already a problem in the NAO in the early 1990s, before the oil boom really had started. Not only oil people poach. Furthermore, some oil companies strictly observe that their employees are not involved in poaching.

1.5. The MODIL-NAO data interpreted in light of security

By Gunhild Hoogensen, project leader of IPY project GAPS (The Impacts of Oil and Gas Activity on Peoples of the Arctic Using a Multiple Securities Perspective)

1.5.1. Introduction and actor-based security model

The GAPS IPY project hopes to contribute to the work of MODIL-NAO by shedding light on the ways in which the security of different players, ranging from the state to individuals, are impacted, and what this potentially means for future planning at local, regional, and national levels.

The notion of security has always been, and is now increasingly, employed in the Arctic region, although rarely if at all with regard to the actual people who live there. More often than not the notion of security has been invoked in a military/state perspective, where Arctic territory plays a role in the physical protection of the state (ie: geopolitical analyses of region, deployment of weapons, patrolling of borders by military). More recently the notion of "energy security" has been increasingly deployed as states jockey for position as oil producers functioning within uncertain markets, providing alternatives to oil and gas production from unstable regions (Middle East), and for securing oil and gas resources, and its income, for producing states.

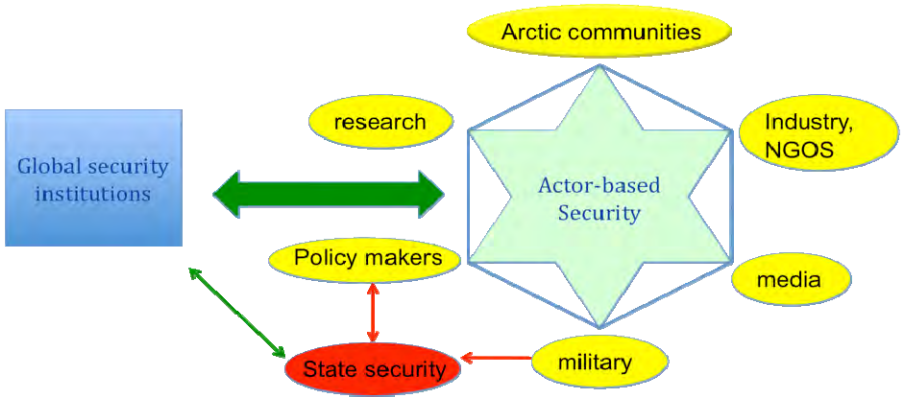


Figure 1-3: *The GAPS actor-based security model*

In other words, "security" is not an unknown concept to the Arctic region. On the contrary, it has played a dominant role in the determination of how this region should and would develop. But invoking this term is highly political, usually indicating an issue of high importance or top priority for a state, an issue for which the state could or would be willing to employ extreme or extraordinary measures to ensure that the state has control over, or is able to protect, the issue in question (this issue could be related to sovereignty, protection of resources, etc). However, the term "security" has not always been so narrow, as it more generally has found its roots in the current and future well-being of individuals, which included but was not restricted to, the role of the state. Cold War politics contributed a reification of the term, in many respects "forgetting" the significance of individuals and communities to the process of creating security and/or insecurity.

Thus, in the case of people living in the Arctic regions, the notion of security has rarely if ever been directly employed in relation to them.

The GAPS project, which as MODIL-NAO also focuses on oil and gas issues in the Arctic, has developed a model representing a multiple actor framework for assessing the overall sense of security derived within a given situation[54]. The model attempts to make visible those actors who either have never been "heard" or have been "silenced" (indigenous peoples, women, minorities, etc) due to dominant discourses about what security should be about. Given that the employment of the notion of security is highly political, giving top priority to issues deemed most valuable in the eyes of powerful actors (usually the state but not always exclusively), we wish to make visible the priorities and values of individuals and communities to see how they can and should inform these political discourses and future plans.

Security is a term we use to indicate our need and desire to protect the things we most value – without these things (be they persons, ideas/concepts, whatever) we would not have security. Security refers to preserving those things we value so that we can expect that they are still with us

[54] Hoogensen, G., Bazely, D.R. et al. 2009: Human Security in the Arctic - yes, it is relevant! *Human Security Journal*; Hoogensen, G., Dale, B. et al. 2009: The Komi Oil spill of 1994 and Local Security Production. *Climate Change: Global Risks, Challenges and Decisions*. Copenhagen, Denmark; Tanentzap, A.J., Bazely, D.R. et al. 2009: A Human Security Framework for the Management of Invasive Nonindigenous Plants. *Invasive Plant Science and Management,* forthcoming.

in the future – security of expectations. Security is thus very context dependent – it is difficult to identify in the abstract what is prioritized and valued without understanding the context in which these values and priorities are embedded, who is articulating them, and who and what these values represent.

Therefore, the GAPS model, referred to as an actor-based model of security, takes into account the security perspectives of various actors indicated through wide/rough categories, including local communities, ”interest groups” (ranging from industry/business to non-governmental organizations), media, policy makers (the state), the military (often employed as a tool for providing security), and research. Generally speaking, these categories have always participated in one way, shape or form to understandings of security, but the dialogue has been over time dominated by largely two of these categories, the state and the military.

The following analysis therefore weighs the various statements and positions of the different NAO respondents, the oil industry, researchers, and the state (through legislative practices) to arrive at an understanding of the security dynamics in the region, and what this potentially means for the future security of the region.

The ”categories” of analysis presented here are derived from the context of the MODIL-NAO research itself, from the nature and trend of the survey material and its responses. Thus, the dialogue between researchers and community members, and their subsequent interactions with industries and state, inform the direction of the analysis.

1.5.2. Evaluation of MODIL-NAO data and assessments in a security framework

The MODIL-NAO project has collected and data and assembled an easily accessible database for the purposes of better monitoring the activities and needs of indigenous peoples in the Nenets Okrug in Russia. Part of the intention of setting up this database is for providing the people of Nenets with solid data from which they can better articulate their interests and have their voices heard in the political decision-making processes. This in turn assists improved accountability on the part of the state and oil companies towards indigenous populations in this area, particularly with regard to shared land use between oil and gas activities and reindeer herding and other ”traditional” economy activities.

On the basis of the data obtained through the MODIL-NAO interviews, this section evaluates processes of security and insecurity through the following indicator: legislation, consultation/participation, environment, quality of life and culture, economics, and energy. These factors are derived from the results of the interviews themselves as those which reflect some of the most prevalent values for these communities.

1.5.2.1. Security through legislation

One defining feature of legislation is that its purpose is to ensure order and reduce chaos, thereby providing security via the mechanism of legislation to the people of a given state. The purpose of any legislation is to provide security to both the legislator (the state) as well as the citizen (individuals of the state). Legislation makes visible the nature of the relationship between individuals, communities and the state, and the responsibilities each has towards the other for the overall intention of ensuring security. However, ”knowing” that security has been achieved is difficult, particularly when it is often the state which dictates the terms and parameters of that security. In other words, legislation functions as far as the state is concerned when state security is not. When legislation fails or is inadequately implemented, it increases insecurity for those relying upon the legislation.

The MODIL-NAO project refers to current legislation that is intended to protect both land as well as the interests of the indigenous peoples living in this region.

Despite these legislative efforts, it is clear from the report that legislation has not been satisfactory, and that local communities have not had the ability to seek recourse and protection through the court system.

1.5.2.2. Security through consultation/participation

According to the report, two associations are politically active on behalf of the Nenets and Komi people (the Association of Nenets People Yasavey and the Izhma-Komi Association Izvatasyas) which participate in to varying degrees developing social and economic programs for the NAO/Komi regions as well as take measures to preserve traditional lifestyles and activities. This suggests a certain level of political participation where there are channels by which indigenous voices can be heard. Despite the legislational requirements for consultation, not one community indicated that this process had been undertaken. Despite the roles of these associations, the actual ways in which consultation takes place locally is unclear. The legislation relies on referenda, but there do not appear to be concrete measures as to how referenda can be employed or when.

Some communities like Krasnoe are very aware of the importance of participation and have been sure to exercise their rights to particiption through written agreements with companies in their region on ensuring minimal damage and obtaining compensation if necessary. There is a perception that there is little to no consultation in the determination of when, how, or even whether or not an oil installation will be built in or around a community. This perception about inaccessibility for consultation increases insecurity about what can and will potentially happen to a region and its local population.

1.5.2.3. Security through the environment

The environment is here, as in many regions, an issue that exposes many perspectives. The report indicates that there is ”major ecological problems” that local communities attribute to oil and gas activity. These ecological problems include reduced pasture land, pollution of waterways, and pipelines cutting off migration routes. Despite this, there appears to be, according to the report, degradation of the environment that cannot be ignored, and that threatens the future potential for reindeer husbandry. As noted further by the report, degraded pastures and polluted land leads to feelings of hopelessness and insecurity amongst inhabitants, which demonstrates the importance of perceptions of and knowledge about what is occurring environmentally.

The report indicates early on that any negative trends that are taking place in the region are more so due to poor management practices rather than any oil and gas activity. However, it is additionally reported that scientists and authorities have monitored and recorded steady degradation of the environment often due to industrial activity since the 1950s. From the scientific viewpoint therefore, better protections for the environment are crucial for health and traditional lifestyles of indigenous peoples in the region, as well as for the animals they are dependent upon.

A small number of respondents from Khorey-Ver were predominantly uninterested in environmental consequences of oil and gas production in their region. This was in part (largely) due to the benefits brought by industry, including better transportation and access to market economy goods. These responses mirror such value-setting and prioritization by communities in other parts of the world which appreciate the prosperous gains made by natural resource exploitation over any possible consequences for the environment. This is also despite the fact that the enormous Kharyaga oil field is situated on the winter pastures of the Khorey-Ver herders, with the result that they don’t use half of their winter pastures anymore as they are cut off by the pipelines. The Kanin Peninsula and Nelmin Nos have either not been affected by oil and gas development or only experienced initial effects as the industry is still new to their areas. Other regions which have had extensive experience with oil and gas development in their regions responded less positively and expressed significant concern over environmental degradation that would affect both the animals and the very lifestyles and identities of their communities.

Thus dialogue needs to be established between this view and the possibilities of losing not only access to the natural environment (through degradation, pollution, etc) but also to lifestyles, values, customs and traditions that have been linked to this same environment. Do these communities value such traditions now, or have they transformed beyond this (not ”evolved” or ”progressed”, but moved so far away from such traditions that they no longer have any relevance to that community). This speaks to the importance (or not) of valuing traditional ways and customs within the community. If traditions associated with the natural environment are no longer relevant to the community, then the security with which one associates with being able to retain identity and traditional culture becomes less signficant or relevant, whereas economic security and access to resulting infrastructure becomes more valued and a stronger part of the security picture for that community.

Thus a next round of questions to the community become relevant – these are the implications of the values and priorities of that community – is that what they are striving for? Is this direction that which will provide the sort of security they need for their future?

1.5.2.4. Security through identity and culture as quality of life (societal security)

The report indicates that the traditional activity of reindeer husbandry is most prominent of traditional activities in the region (both Nenets and Izhma-Komi). In addition traditional activities include subsistence and commercial fishing and hunting and gathering. Given the emphasis on traditional economies, and the lifestyles associated with it, it is clear that the Nenets and Izhma-Komi people desire to preserve these activities as reflections of identity. Therefore any event or process that causes a decrease or elimination of these activities threatens the identities associated with these activities. The amount of legislation directed towards indigenous concerns in the Russian Federation indicates a recognition that preserving these identities is important. However, to en-

sure that these identities remain secure, legislation has to be followed through, environments protected to allow for traditional activities, and social and political processes more accessible to the peoples of these regions. Unfortunately the recent trend in legislation has shown the opposite, whereby amendments appear to protect the interests of the oil industry rather than the environment or the affected populations.

1.5.2.5. Security through economics, infrastructure - facilities

Living conditions are not defined in this report, but are understood to not necessarily include identity or cultural elements in one's life. In other words, refer to living standards, but not necessarily quality of life. This is because respondents have both stated that living conditions had in some cases improved, but that cultural issues had not (ie: preservation of a way of life, etc).

Some of the improvements in living conditions included better housing, repaired roads, improved access to foodstuffs.

One group in particular, Khorey-Ver, seemed to have experienced the most benefit from the presence of the oil companies, and had little to no interest in the impacts on the environment. However, the report indicates that very few responses were obtained in this region to be able to give an accurate account of individual and community perspectives.

1.5.2.6. Energy security

The legislation cited in the report does not explicitly discuss "energy security" per se, but is reflected in the language of the legal frameworks. For example, regarding the federal law "On subsoil resources" a central goal is the reliable supply of mineral and raw materials, and its protection for future use and generations. This reflects a recognition of securing future expectations for those depending on natural resources in the region. However, as the past few years have shown, the Russian Federation is a significant oil producer for the global market, and its own economy is highly dependent upon this resource as oil is its primary export. Oil and gas have been even more tightly bound to notions of state security (as energy security) and the national economy, making the impacts on local regions and on human security of less importance.

1.5.2.7. Security through communities

What is often little recognized, due to the dominance of a state-based understanding of security, is the extent to which security for communities and individuals (despite legislation and state interaction) becomes largely dependent upon those same individuals and communities. The MODIL-NAO report reports that all respondents to the questionnaires indicated that they had to be largely self-reliant. Life in the Nenets Autonomous Okrug was dependent solely upon the residents. In other words, security was largely created by and through the local communities, and less so through state legislation or other state mechanisms. This suggests little recognition for or sense of relationship with the mechanisms of the state (through legislation) that are in theory in place to provide additional support to communities (welfare system, etc).

1.5.3. Conclusions

Based on the data provided by the MODIL-NAO project it is possible to conduct an initial analysis pertaining to the impacts of oil and gas activity on Nenets and Komi peoples in the Russian Federation. Seven security-relevant issue-areas appeared to be most dominant in the work, though to varying degrees of importance. These areas included: security through legislation, participation, environment, economy, energy, identity, and communities. These issue areas overlap in many ways, as effects to identity are intimately linked to effects to the environment, and so forth. However it was useful to be able to highlight these issue areas for an initial analysis of the ways in which security is perceived in this specific context.

Additionally, the report confirmed the importance of examining the roles of various actors that can influence the security process and visions of security for the future (security of expectation). As such, we can look to the actor-based security model to see what sort of security picture emerges for this region with regard to impacts of oil and gas development, and how competing interests might influence the sense of security there. Various perspectives and initiatives are reflected by various actors in a competing picture of local/human security in these regions. With regard to the actor-based security model, those actors that appear to play the most dominant roles in the data collected include local communities, researchers, policy makers (the state), and industry.

Legislation constitutes more or less the core of security provided by the state to its people. The role of the state has been largely in the provision of legislation to both protect fragile indigenous communities,

as well as to protect the environment. Based on the research provided by the report, this legislation is relatively extensive, but does not appear to be as effective as one would expect or desire, thereby decreasing the perception of security for the people who rely upon this legislation.

The research community contributes to the security picture in the region in its general emphasis upon the extent of environmental degradation that has taken place for approximately half a century now. Concerns are raised by the research community about the extent of the damage and the ability of the local communities to continue to thrive in an area where both traditional activities dependent upon natural resources (including livestock) and the health of people themselves are increasingly threatened.

Little has been said in this report pertaining to the role and perceptions of the oil and gas industry itself, other than that industry has an obligation to allow for contracts with local communities pertaining to minimal damage to the environment and for providing compensation. Given the nature of the industry it can be assumed that the perspective that is dominant here would be that of economic security, and the benefits of increased incomes and developments in infrastructure that would be emphasised, in addition to the importance of generating oil and gas profits for the national economy. Lastly they would possibly also be a voice in articulating the importance of energy security, in maintaining a reliable supply of energy at a reasonable price.

Local communities have been the focal actor for this particular project, providing interesting and sometimes contradictory results regarding perceptions of impacts of the oil and gas industry in the region. This could largely be due to the values of each community surveyed, whereby one group may underestimate the significance of environmental degradation as it does not place as much value on the environment (is not dependent upon it), whereas others place much greater value upon the environment and are thus much more sensitive to the vulnerabilities of environmental degradation. Local communities appear to some degree caught between the conundrum of the economic benefits that oil and gas activity brings and the devastation of the environment. It was also indicated in the data that there is a strong feeling that local communities need to largely fend for themselves when it comes to protecting both the environment and their traditional activities. Some communities appear to be more effective in this respect, attempting to engage in political participation. Other communities however appear to feel that participation in decision-making is not even a possibility, further disconnecting them from the effects of legislation that is designed to provide security.

Taking the various actor perspectives together, there is generally considerable weight placed on the significance of environmental degradation. Although not as effectual as one would hope, the state demonstrates its own awareness for environmental security here by enacting a variety of laws to protect both the environment as well as protecting people who depend upon the same environment, whose very livelihoods are at stake. The recognition of the significance of environmental degradation is also quite clear within the interviews, where many respondents lament the destruction that they have either seen or foresee. The few communities that have not experienced oil and gas development were the only ones which did not express such a concern for the environment. The perceptions of local communities and the national and regional governments (the state) regarding the environment were confirmed by scientific communities which later established that degradation has taken place for approximately 50 years since oil and gas development began.

Thus, according to the data collected in the MODIL-NAO project, the security of Nenets and Izhma-Komi people in the regions surveyed are intimately tied to the environment and its preservation and protection. To not do so has the very real potential to threaten not only the physical environment itself, but the lifestyles, identity, and traditional economic activities of indigenous peoples in the Nenets Autonomous Okrug and Komi Republic.

1.6. Outlook

1.6.1. A pilot study for other areas?

In listing the goals of the MODIL-NAO project it was indicated that it may serve as a pilot project for similar, future projects in other areas. MODIL-NAO was successful in creating an alliance between scientists and representatives of an Arctic indigenous people. In this case, a loose network between the main stakeholders of the project already existed; they knew each other from various kinds of joint activities. This fact was certainly advantageous, compared to a situation in which partners first need to be introduced and gain a trustful relationship. This may be a time-consuming process during the initial phase of planning. Trust is an important issue in cooperation between scientists and indigenous people. The latter must be able to count on the scientists not simply pursuing their scientific agenda and publishing needs and that their highest priority is assisting the indigenous society in their need for socio-economic or environmental support. And the scientists must rely on the fact that the indigenous representatives accept that proper scientific methods are applied and that there is a need for scientific contributions and qualifications through publishing. We believe that MODIL-NAO was successful in this respect and that the lessons learned can be useful for future projects.

Which conditions can be similar or different in other places?

When applying this project idea to other areas in Russia, similar problems may be faced. Unlike other industrial countries of the Northern Hemisphere, it is generally difficult in Russia to get detailed maps or data that have a certain relevance to geological resources from official sources. The solution is to cooperate with Russian institutes or associations that have access to such data. It is also recommended that the local authorities be informed about the planned project and to ask for permission if major campaigns like questionnaire surveys are planned. The Russian project partners are normally the best suited to make these connections and inquiries, and they should be in charge of leading such activities in Russia, even when the project as a whole is managed from abroad.

A complicating factor with MODIL-NAO was the turnover of office-holders in the Okrug administration. Officials who were informed and had promised their support in the planning phase were not in charge anymore when the project finally started and relations had to be built again. Under such circumstances it is highly recommended to have a well-prepared, concise summary document in the Russian language that can be handed over to officials and that explains the purpose and methods of the project and lists all involved partners.

A facilitating fact was that the indigenous partner of MODIL-NAO is comparatively well equipped with computers and has personnel highly qualified in information and communication technology (ICT). In other instances, one might need to provide the indigenous partner with ICT personnel for the project period.

Naturally, projects like MODIL-NAO can also be beneficial in Arctic countries of the Western Hemisphere, or in non-Arctic areas. A number of countries have well-developed relations between governmental authorities, commercial companies and indigenous peoples and most data that the project could deliver are already provided by national authorities, like land-use planning maps and databases. Indigenous representatives may have full access to these tools and a good overview of the situation. The necessity for assistance, which MODIL-NAO sought to establish, must be carefully checked with the indigenous leaders of the respective country or region, and the project must be adjusted to local needs. To plan the project basically with the local governmental authorities can easily result in a loss of trust from the indigenous peoples.

1.6.2. Recommendations to stakeholders

To deal with the challenges described in the present report, we think it is necessary:

- to take account of indigenous peoples' interests and map traditional nature management in the territory of the Nenets Autonomous Okrug (the beginning of this is done in the framework of the present project MODIL-NAO, which is carried out at the initiative of the Association of Nenets People Yasavey in the framework of the International Polar Year);
- to carry out qualitative assessments of lands and land management exercised by all households engaged in traditional use of natural resources;
- to carry out an obligatory assessment of the influence of industrial development projects in the okrug territory on the and the traditional land areas and livelihood of the indigenous people;
- to establish management bodies responsible for the management of Territories of Traditional Nature Use (TTNU), which would involve the participation of indigenous people and the Association of Nenets People Yasavey;
- to establish a special standing forum in NAO's Zapolyarnyy Rayon[55], which would facilitate negotiations between indigenous people, industrial companies and government authorities in order to identify and prevent potential conflicts of interests;
- based on options provided in the current Russian legislation, it has been proposed to establish an Ethno-Environmental Committee. This Committee, which should have juridical knowledge and access to information from the MODIL-NAO project database, could function as a tool in professional negotiations with subsoill resource users.
- to introduce relevant additions into the legislation of the Nenets Autonomous Okrug, which would legitimise the following proposals, namely:

1) a draft proposal introducing amendments for the regulations about the TTNU im. Vyucheyskyogo, including the establishment of a joint management of the TTNU;

2) proposals to introduce amendments to the NAO legislation, which would facilitate estimations of damage and ethno-ecological assessments. This should aim at preventing damage and minimize the negative effects of industrial projects on the environment and traditional livelihood of the indigenous people, as well as allow for objective assessments of damage and adequate compensations;

3) a draft resolution on guidelines for assessing the extent of damage to natural resources in the traditional environment of indigenous people in the NAO, and guidelines as such;

4) a draft resolution on regulations on ethnological assessments in the traditional environment of indigenous people in the Nenets Autonomous Okrug, and regulations as such.

Unfortunately, the above proposals cannot be easily implemented in the NAO, as governmental authorities recently have delgated a number of the okrug's responsibilities to the administration of the Arkhangelsk Oblast, a fact that is rendering respective legislative initiatives in the NAO more difficult.

Besides the above issues, we recommend to support and develop existing initiatives to train people working in the tundra in monitoring environmental changes.

[55] Zapolyarnyy Rayon: A newly (2005) established municipality consisting of all of the Nenets Autonomous Okrug, with the exception of the town Naryan-Mar.

1.7. Further reading

- General
- GIS, relevant applications
- Mapping, with emphasis on Nenets A.O.
- Oil and gas development in the Russian Arctic, with emphasis on Nenets A.O.
- Ecosystems, with emphasis on Nenets A.O.
- Indigenous peoples facing mainstream development, with emphasis on Nenets A.O.
- Human / reindeer systems, with emphasis on Nenets A.O.
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Dataset No. 19: Protected areas
Polygon data, 12 map elements (status: 2009)
Technical designation: protected_areas

Nature reserves and national parks as well as Territories of Traditional Nature Use for indigenous people are shown in this dataset. For sources of the latter, see dataset 21. Borders of nature reserves and national parks are from the General Geographical Map, 1:1 million "Arkhangelskaya Oblast – Nenetskiy Avtonomnyy Okrug" (Aerogeodeziya Roskartografiya 1995; revised in 2005), supplemented by information from the Encyclopedic Dictionary "Nenetskiy Avtonomnyy Okrug".

Attribute	Explanation
name	name of the protected area
type_code	type of area, code number
type_description	type of area, description
year_established	year of establishment of protected area
remarks	comments on any of the database fields
accuracy	refers to the position of the area boundaries on the map
source	data source of the map element (year)

Type_code	Type_description
1	zapovednik (nature reserve)
2	zakaznik (national park)
3	others

Dataset No. 20: Traditional land use cooperations
Polygon data, 32 map elements (status: 2009)
Technical designation: trad_occupations_coop

Information from the former Office for Reindeer Husbandry Management of the NAO Agricultural Department , transferred from a map prepared by the Nenets Information and Analytical Centre.

Attribute	Explanation
name	name of the cooperation or clan community
center	village, where central management is placed
occupation	main traditional occupation pursued by the cooperation or clan community
number_employees	number of employees (year of reference)
documents	pdf files linked to the element on the map
remarks	comments to any of the database fields; "TTNU" refers to a formally established Territory of Traditional Nature Use
accuracy	refers to the position of the area boundaries on the map
source	data source of the map element (year)